

**PROGRAM
DRAFT ENVIRONMENTAL IMPACT REPORT
FOR THE
WEST VALLEY WATER RECLAMATION PROGRAM
(SCH#2019029091)**

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LIST OF ABBREVIATIONS AND ACROYNMS

| | |
|-----------------|---|
| AAQS | Ambient Air Quality Standards |
| AASHTO | American Association of State Highway and Transportation Officials |
| ADA | Antidegradation Analysis |
| ADT | Average Daily Traffic |
| ALUCP | Airport Land Use Compatibility Plan |
| amsl | above mean sea level |
| AOC | Area of Concern |
| APE | Area of Potential Effect |
| AQMD | Air Quality Management District |
| AQMP | Air Quality Management Plan |
| ARB | Air Resources Board |
| ASST | Aerated Sludge Storage Tanks |
| BACMs | Best Available Control Measures |
| BGS | below ground surface |
| BFP | belt filter press |
| BLM | Bureau of Land Management |
| BMPs | Best Management Practices |
| BOD | Biochemical Oxygen Demand |
| BUOW | burrowing owl |
| CAAA | Clean Air Act Amendment |
| CAAQS | California Ambient Air Quality Standards |
| CalARP | California Accidental Release Prevention Program |
| CalEEMod™ | California Emissions Estimator Model™ |
| Cal/EPA | California Environmental Protection Act |
| Cal/OSHA | California Occupational Safety and Health Administration |
| CAP | Climate Action Plan |
| CAPCOA | California Air Pollution Control Officer Association |
| CARB | California Air Resources Board |
| CBC | California Building Code |
| CCAQS | California Ambient Air Quality Standards |
| CCAR | California Climate Action Registry |
| CCR | California Code of Regulations |
| CDC | California Department of Conservation |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CERCLA | Comprehensive Environmental Response Compensation and Liability Act |
| CERCLIS | Comprehensive Environmental Response, Compensation, and Liability Information System List |
| CESA | California Endangered Species Act |
| CFCs | Chlorofluorocarbons |
| CFR | Code of Regulation |
| CGS | California Geological Survey |
| CH ₄ | Methane |

| | |
|-------------------|---|
| CHL | California Historical Landmarks |
| CHP | California Highway Patrol |
| CIP | Capital Improvement Program |
| CNEL | Community Noise Equivalent Level |
| CO | Carbon |
| CO ₂ | Carbon Dioxide |
| CO ₂ e | Carbon Dioxide equivalent |
| COA | Conditions of Approval |
| COC | Chemical of Concern |
| CPUC | California Public Utilities Commission |
| CR | Commercial Retail |
| CRDEH | County of Riverside Department of Environmental Health |
| CUPA | Certified Unified Program Agency |
| CVCC | Coachella Valley Conservation Commission |
| CVFTL | Coachella Valley Fringe-Toed Lizard |
| CVMSHCP | Coachella Valley Multiple Species Habitat Conservation Plan |
| CVPA | Coachella Valley Planning Area |
| CVWD | Coachella Valley Water District |
| dB | decibel |
| dBA | A-weighted decibel |
| DEH | Department of Environmental Health |
| DEIR | Draft Environmental Impact Report |
| DNL | Day/Night Average Sound Level |
| DOGGR | Division of Oil, Gas and Geothermal Resources |
| DOT | Department of Transportation |
| DTSC | Department of Toxic Substance Control |
| DWA | Desert Water Agency |
| EDR | Environmental Database Review |
| EIR | Environmental Impact Report |
| EPA | Environmental Protection Agency |
| EPO | Environmental Protection and Oversight |
| FAC | Facultative |
| FACU | Facultative Upland |
| FACW | Facultative Wetland |
| FEMA | Federal Emergency Management Act |
| FIRM | Flood Insurance Rate Map |
| FMMP | Farmland Mapping and Monitoring Program |
| FRAP | Fire and Resource Assessment Program |
| FUDS | Formerly Used Defense Sites |
| GCC | Global Climate Change |
| GHG | Greenhouse Gas |
| GPD | gallons per day |
| gpm | gallons per minute |
| GPT | Gravity Belt Thickener |

| | |
|----------------------|---|
| GPY | gallons per year |
| GQPP | Groundwater Quality Protection Program |
| GWP | Global Warming Potential |
| GWPP | Groundwater Protection Program |
| HCM | Highway Capacity Manual |
| HFCs | Hydroflourocarbons |
| HMBEP | Hazardous Materials Business Emergency Plan |
| HREC | Historical Recognized Environmental Conditions |
| HSA | Hydrologic Sub-Area |
| HSC | Health and Safety Code |
| HUD | Housing and Urban Development |
| HWCL | Hazardous Waste Control Law |
| HWMP | Hazardous Waste Management Plan |
| HWWTTP | Horton Wastewater Treatment Plant |
| IPCC | Intergovernmental Panel on Climate Change |
| ITE | Institute of Transportation Engineers |
| IPS | Influent Pump Station |
| LAFCo | Local Agency Formation Commission |
| LEQ | equivalent energy level |
| LI | Light Industrial |
| LOS | Level of Service |
| LSA | Lake or Streambed Alteration |
| LST | Localized Significance Thresholds |
| LUST | Leaking Underground Storage Tank |
| MBTA | Migratory Bird Treaty Act |
| MCL | Maximum Contaminant Level |
| MDR | Medium Density Residential |
| MGD | million gallons per day |
| MLD | Most Likely Descendant |
| MM | Mitigation Measure |
| MMTCO ₂ e | million metric tons of Carbon Dioxide equivalent |
| MPO | Metropolitan Planning Organization |
| MRP | Monitoring and Reporting Program |
| MSHCP | Multiple Species Habitat Conservation Plan |
| MSWD | Mission Springs Water District |
| MW | megawatts |
| N ₂ O | Nitrous Oxide |
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Commission |
| NFIP | National Flood Insurance Program |
| NHPA | National Historic Preservation Act |
| NIOSH | National Institute for Occupational Safety and Health |
| NO ₂ | Nitrogen Dioxide |
| NOAA | National Oceanic and Atmospheric Administration |

| | |
|-------------------|--|
| NOP | Notice of Preparation |
| NPA | No Project Alternative |
| NPDES | National Pollution Discharge Elimination System |
| NRCS | Natural Resources Conservation Service |
| NWP | Nationwide Permit |
| O ₃ | Ozone |
| OBL | Obligate Wetland |
| OEHHA | Office of Environmental Health Hazard Assessment |
| OES | Office of Emergency Services |
| OHV | Off-Highway Vehicle |
| OHWM | Ordinary High Water Mark |
| OHP | Office of Historic Preservation |
| OPR | Office of Planning and Research |
| OSHA | Occupational Safety and Health Administration |
| OS-W | Open Space-Water |
| PEIR | Program Environmental Impact Report |
| PHI | Points of Historical Interests |
| PHMSA | Pipeline and Hazardous Materials Safety Administration |
| PLC | Programmable Logic Controller |
| PM ₁₀ | Respirable Particulate Matter |
| PM _{2.5} | Fine Particulate Matter |
| ppb | parts per billion |
| ppm | parts per million |
| PPV | Peak Particle Velocity |
| PRC | Public Resources Code |
| PVC | Polyvinyle Chloride |
| RCFD | Riverside County Fire Department |
| RCRA | Resource Conservation and Recovery Act |
| RD | Rural Desert |
| RDTs | Rotary Drum Thickeners |
| REC | Recognized Environmental Conditions |
| RHNA | Regional Housing Needs Assessment |
| R-L | Residential Low Density |
| ROG | Reactive Organic Gases |
| RPS | Renewable Portfolio Standards |
| RR | Rural Residential |
| RTP | Regional Transportation Plan |
| RWQCB | Regional Water Quality Control Board, Colorado Basin |
| SARA | Superfund Amendments and Reauthorization Act |
| SB | Senate Bill |
| SBR | Sequencing Batch Reactor |
| SCAB | South Coast Air Basin |
| SCADA | Supervisory Control and Data Acquisition |
| SCAG | Southern California Association of Governments |

| | |
|-----------------|---|
| SCAQMD | South Coast Air Quality Management District |
| SCE | Southern California Edison |
| SCH | State Clearinghouse |
| SCS | Sustainable Communities Strategy |
| SEDAB | Southeast Desert Air Basin |
| SHPO | State Historic Preservation Officer |
| SIP | State Implementation Plan |
| SO ₂ | Sulfur Dioxide |
| SoCAB | South Coast Air Basin |
| SoCalGas | Southern California Gas Company |
| SOI | Sphere of Influence |
| SOP | Standard Operating Procedures |
| SWP | State Water Project |
| SWPPP | Storm Water Pollution Prevention Plan |
| SWRCB | State Water Resource Control Board |
| TAC | Toxic Air Contaminants |
| TDA | Tom Dodson & Associates |
| TIA | Traffic Impact Analysis |
| TLMA | Transportation Land Management Agency |
| TM | Technical Memorandum |
| UBC | Uniform Building Code |
| UPL | Obligate Upland |
| U.S. | United States |
| USACE | U.S. Army Corps of Engineers |
| USDA | U.S. Department of Agriculture |
| USFS | U.S. Forest Service |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |
| UST | Underground Storage Tank |
| UWMP | Urban Water Management Plan |
| VES | Vapor Encroachment Screen |
| VFD | Variable Frequency Drive |
| VOC | Volatile Organic Compound |
| VMT | Vehicle Miles Travelled |
| WDR | Waste Discharge Requirements |
| WoUS | Waters of the United States |
| WQC | Water Quality Criterion |
| WQMP | Water Quality Management Plan |
| WQO | Water Quality Objective |
| WRR | Water Recycling Requirements |
| WVWRF | West Valley Water Reclamation Facility |
| WVWRP | West Valley Water Reclamation Program |

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CHAPTER 1 – EXECUTIVE SUMMARY

This Executive Summary for the Mission Springs Water District West Valley Water Reclamation Program Draft EIR (DEIR) summarizes the potential environmental effects that are forecast to occur from implementation of the proposed Project. It also contains a summary of the Project background, Project objectives, and Project description. A table summarizing potentially significant environmental impacts, mitigation measures, and mitigation responsibility is included at the end of this Executive Summary (Table 1-2: Summary of Impacts and Avoidance, Minimization and Mitigation Measures Discussed in this Draft EIR).

1.1 PROJECT BACKGROUND

The Mission Springs Water District (MSWD or District) is proposing to implement a West Valley Water Reclamation Program (WVWRP or Program) that includes constructing municipal wastewater collection and treatment systems that will eliminate individual septic systems that overlie the Mission Creek and Desert Hot Springs aquifers. MSWD has successfully completed Groundwater Quality Protection Program (GQPP) projects since 2006, and continues efforts to complete GQPP projects resulting in a need for additional treatment capacity. MSWD has elected to pursue the completion of its Regional Wastewater Program, now known as the WVWRP to meet the growing wastewater treatment capacity needs within its service area. The WVWRP has three components: construction of a West Valley Water Reclamation Facility (WVWRF), construction of a conveyance system connecting existing sewer areas to the WVWRF, and constructing a collection system for GQPP Area M2 (to be served by the WVWRF).

MSWD 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 currently has 9,100 sewer connections throughout its service area. The GQPP is a separate program that MSWD has implemented over the last several years, and ultimately will remove more than 7,200 septic tanks that will connect to MSWD's sewer system. As the GQPP implementation progressed, the need for additional sewage treatment capacity within the MSWD service area was identified. This added sewage flow would be diverted to the planned WVWRF located on a 60-acre site along the west side of Little Morongo Road, between 19th Avenue and 20th Avenue. The new WVWRF will receive wastewater flows through a new conveyance pipeline that will connect to the existing Dos Palmas Lift Station. The District's wastewater collection service area is divided into several collection zones. One of these zones is called the M-2 collection area. As part of this Program DEIR, the M-2 collection area will be served by the new WVWRF through new sewer pipeline and connections.

MSWD has prepared this Program DEIR for the MSWD West Valley Water Reclamation Program that evaluates the potential environmental impacts that would result from constructing and implementing the Program. The focus of the analysis, in accordance with Section 15146 of the State CEQA Guidelines, addresses the specific effects of the proposed Project as presented in Chapter 3, Project Description. However, it is the combination of authorizations and entitlements requested for this Project that must be approved by MSWD to allow the Program to be implemented.

1.2 INTENDED USE OF THIS ENVIRONMENTAL IMPACT REPORT

This Program DEIR has been prepared in accordance with the CEQA Statutes and Guidelines, 2018, pursuant to Section 21151 of CEQA. MSWD is the Lead Agency for the Project and has supervised the preparation of this Program DEIR. This Program DEIR is an information document which will inform public agency decision makers and the general public of the potential environmental effects, including any significant impacts that may be caused by implementing the proposed Project. Possible ways to minimize significant effects of the proposed Project and reasonable alternatives to the Project are also identified in this Program DEIR.

This document assesses the impacts, including unavoidable adverse impacts and cumulative impacts, related to the construction and operation of the proposed Project. This Program DEIR is also intended to support the permitting process of all agencies from which discretionary approvals must be obtained for particular elements of this Project. Other California agency approvals (if required) for which this environmental document may be utilized include:

Aesthetics: Local jurisdictions, Desert Hot Springs and Riverside County, possibly including building permits

Air Quality: South Coast Air Quality Management District, permit the operation of the WVWRF and possibly individual pieces of equipment (stand-by emergency generator)

Biology: 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 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.

Hydrology & Water Quality: A wide range of participation will occur for these issues. The RWQCB will issue Waste Discharge Requirements (WDR) for the WVWRF. The California Department of Public Health must also review and approve the future use of recycled water. The County and local jurisdictions must ensure that stormwater discharges from each of the facility sites meet the current municipal stormwater sewer standards (MS4); and a Stormwater Pollution Prevention Plan (SWPPP) must be implemented for each location where disturbance exceeds one acre. To construct the facilities a Notice of Intent must be submitted to the State Water Resources Control Board for a General Construction Permit, which is then enforced by the RWQCB. Finally, if any flood hazard areas are affected by the proposed project, County Flood Control, the City, and FEMA may perform reviews for this project.

Land Use & Planning: The City and/or County may issue conditional use permits for the facility and then building permits for construction, including grading and excavations.

Noise: Compliance with local jurisdiction Noise Element and Noise Ordinance may be necessary due to proximity of facilities to sensitive noise receptors.

Population/
Housing: No permits or review agencies are involved with the proposed project, with the possible exception of regional planning agencies, such as Coachella Valley Association of Governments.

No other reviewing or permitting agencies have been identified.

1.3 PROJECT OBJECTIVES

The proposed Project consists of implementation of the WVWRP (Program). The WVWRP has three components: construction of a WWRF, construction of a conveyance system connecting existing sewer areas to the WWRF, and constructing a collection system for the GQPP Area M2 to be served by the WWRF. The primary purpose and objectives of the proposed project are to:

- The primary purpose of the proposed WVWRP is to expand the District's GQPP to protect and preserve the quality of its most valuable natural resource, groundwater.
- A specific objective of the WVWRP is to improve groundwater quality by removing individual septic systems and treating wastewater for constituents of concern.
- Another specific objective is to increase the capacity at the Horton Wastewater Treatment Plant by diverting a portion of the existing sewer areas to the proposed WWRF.
- Another specific objective is to maximize future water resources within the MSWD service area by treating the wastewater to a level that it can be directly used to offset potable water demand for landscape irrigation within the District's service area.

1.4 PROJECT APPROVALS

This Program DEIR will be used as the information source and CEQA compliance document for the following discretionary actions or approvals by the CEQA lead agency, MSWD. CEQA requires that the MSWD, the CEQA Lead Agency, consider the environmental information in the project record, including this Program DEIR, prior to making a decision regarding whether or not to approve and implement the proposed project. The decision that will be considered by MSWD is whether to approve the WVWRP defined in Chapter 3 of this document. The WVWRP has three components: construction of the WWRF, construction of a conveyance system connecting existing sewer areas to the WWRF, and constructing a collection system for the GQPP Area M2 (to be served by the WWRF). Alternatively, MSWD can reject the project as proposed. This Program DEIR evaluates the environmental effects as outlined above.

MSWD will serve as the CEQA Lead Agency pursuant to the State CEQA Guidelines Section 15015(b)(1). This Program DEIR has been prepared by Tom Dodson & Associates (TDA) under the direction of the MSWD. TDA was retained to assist MSWD to perform the independent review of the project required by CEQA before the Program DEIR is released.

MSWD has reviewed the content of the Program DEIR and concurs in the conclusions and findings contained herein.

1.5 IMPACTS

MSWD concluded that an EIR should be prepared to address any potential significant impacts that may result from implementation of the proposed Project. A Program DEIR has been prepared for the proposed Project.

Based on data and analysis provided in this Program DEIR, it is concluded the proposed Project will not result in any significant adverse environmental impacts to any of the 19 topics that make up the current Appendix G of the CEQA Guidelines. All potential impacts were determined to be less than significant without mitigation or can be reduced to a less than significant level with implementation of the mitigation measures. Note that the cumulative significant impacts are identified in this document based on findings that the Project's contributions to such impacts are not considered to be cumulatively considerable which is the threshold identified in Section 15130 of the State CEQA Guidelines. Table 1-2 summarizes all of the environmental impacts and proposed mitigation and monitoring measures identified in this Program DEIR and will be provided to the decision-makers prior to finalizing the EIR.

The following issues evaluated in the Program DEIR have been determined to experience less than significant impacts—either with or without mitigation—based on the facts, analysis and findings in this Program DEIR.

4.2 Aesthetics: As described in Subchapter 4.2 of this DEIR, the development of the WVWRP was determined to be less than significant with implementation of mitigation to ensure that the design of the WVWRF is designed in accordance with local design standards, and painted in a color that closely matches the surrounding setting. As a result, there will not be any unavoidable Project specific or cumulative adverse impacts to aesthetics from implementing the Project as proposed.

4.3 Agriculture: As described in Subchapter 4.3 of this DEIR, there are no agricultural resources within the WVWRP footprint, and as such, under both the No Project Alternative (NPA) and Project scenarios, no impacts would occur, and as such, the proposed Project is not forecast to cause any significant adverse impacts to agricultural resources or resource value. No unavoidable significant impact to agricultural resources will result from implementing the proposed Project.

4.4 Air Quality: As described in Subchapter 4.4 of this DEIR, Air pollution emissions from construction of the WVWRP were modeled based on a worst-case scenario, and were calculated to be below emissions thresholds for all criteria pollutants. Furthermore, WVWRP construction was projected to be below Localized Significance Thresholds (LST) Thresholds. Additionally, operation of the WVWRP was determined to be less than significant. Mitigation measures were identified to control fugitive dust and exhaust emissions. No unavoidable significant impact to air quality will result from implementing the proposed Project.

4.5 Biological Resources: As described in Subchapter 4.5, the proposed Project will develop the site at a substantially greater intensity than currently exists or can occur under existing circumstances. The Biological Resource Assessment (Appendix 3, Volume 2) as summarized in the preceding section identified three potential adverse impacts to biological resources:

presence of burrowing owl (BUOW) habitat and desert tortoise habitat on the project site; potential to adversely impact birds during the nesting season; and impacts to jurisdictional waters requiring MSWD to acquire several permits.

4.6 Cultural Resources: As described in Subchapter 4.6 of this DEIR, all potential cultural resource impacts associated with the proposed Project would be limited and can be mitigated to a less than significant impact level. As a result, there will not be any unavoidable Project specific or cumulatively significant adverse impacts to cultural resources from implementing the Project as proposed.

4.7 Geology and Soils: As described in Subchapter 4.7 of this DEIR, the existing geology and soil resources and constraints have been evaluated for impact to and from the implementation of the Project. No unavoidable significant adverse on-site or off-site geology or soil impacts have been identified. Mitigation, in the form of standard conditions and limited mitigation measures, has been identified that must be implemented to prevent erosion and ensure structural stability (recommended design and construction measures) as outlined in the Geotechnical Investigation for the Project. With implementation of the recommended measures, future employees or visitors of the proposed structures can be adequately protected. The Project can be implemented without causing or experiencing significant unavoidable geology or soil impacts.

4.8 Greenhouse Gas: For the development of the VVWRP, greenhouse gas (GHG) impacts from construction are considered individually less than significant. According to the evaluation in Subchapter 4.8, the proposed project would not exceed the screening threshold of 3,000 MT for CO₂(e) GHG emissions. Thus, no unavoidable significant impact to greenhouse gas will result from implementing the proposed Project.

4.9 Hazards and Hazardous Waste: As described in Subchapter 4.9 of this DEIR, the Project requires mitigation measures to address potential accidental spills and leakage of petroleum products as well as storage of hazardous materials. Therefore, though there will be some adverse impacts as a result of implementing the Project, specific mitigation measures have been identified to reduce potential Project specific and cumulative (direct and indirect) effects to a less than significant impact level for hazards and hazardous material issues. Thus, the Project is not forecast to cause any unavoidable significant adverse hazards or hazardous material impacts.

4.10 Hydrology and Water Quality: As described in Subchapter 4.10 of this DEIR, the proposed Project will make unavoidable alterations in the site hydrology and the proposed uses have a potential to result in generation of new pollutants from the proposed VVWRF that can degrade water quality. However, the proposed project requires mitigation to prevent significant impacts over the long-term to Well 33, which is located within the VVWRF site. Ultimately, the proposed Project will not cause unavoidable significant hydrology or water quality impacts.

4.11 Land Use and Planning: As described in Subchapter 4.11 of this DEIR, no impacts to land use and planning from the Project is anticipated to occur. The development of the proposed VVWRP would fall under California Government Code Section 53091, which specifies that water and wastewater supply facilities—such as those associated with the proposed project—are exempt from zoning restrictions. As such, the proposed Project will not cause unavoidable significant land use and planning impacts.

4.12 Minerals: The evaluation in Subchapter 4.12 concluded that the project site does not contain any mineral resources of any value to society. Based on this finding, the proposed Project has no potential to cause any unavoidable adverse impact to mineral resources or values in the project area.

4.13 Noise: As described in Subchapter 4.13 of this DEIR, the existing noise setting of the proposed project site will be permanently altered as a result of implementation of the proposed Project. Due to the rural nature of the proposed WVWRF site, noise from construction or operation of the WVWRF will be minimal due to the 1.8 mile distance separation to the closest residence. Once installed, the pipeline will be located below ground, and will not generate any noise. The Project is required to comply with the Desert Hot Springs and Riverside County noise ordinances pertaining to construction noise, and mitigation is implemented to reduce impacts from noise during construction of the WVWRP. Based on this finding, the proposed Project has no potential to cause any unavoidable adverse noise impacts in the project area.

4.14 Population and Housing: As described in Subchapter 4.14 of this DEIR, the WVWRP does not propose any housing, and it is not anticipated to substantially induce population growth either directly, or indirectly. The WVWRP has a potential to increase the local population by as many as 20 persons, and require 20 new housing units, which was determined to be less than significant. Based on these data, the proposed project has no potential to cause any unavoidable adverse impacts to population and housing in the project area.

4.15 Public Services: As described in Subchapter 4.15 of this DEIR, due to the limited population increase that would occur as a result of implementation of the WVWRP, the demand for public services (fire, sheriff, schools, libraries, etc.) would be minimal. The WVWRF would be fenced, and as such would limit any random trespass, and the proposed land use is not such that the potential for fire at the site would be significant. As such, the impact for each type of public service was determined to be less than significant; the proposed project has no potential to cause any unavoidable adverse impacts to population and housing in the project area.

4.16 Recreation: As described in Subchapter 4.16 of this DEIR, under the proposed WVWRP, no recreational facilities are proposed. The potential increase of 20 persons under the WVWRP would be minimal relative to the forecasted growth anticipated to occur within the City and the overall Coachella Valley in the next decades, and therefore, would not increase the use of existing regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Based on these findings, the proposed Project would not cause significant unavoidable adverse impacts to the area recreation resources.

4.17 Transportation / Traffic: As described in Subchapter 4.17 of this DEIR, construction is not anticipated to result in a doubling of peak hour traffic, and overall is not anticipated to result in any significant traffic impacts. Construction requires mitigation to implement a congestion management plan, and to ensure that the roadways within which the pipeline will be installed are returned to their original condition. In the long-term, operation of the WVWRP will generate minimal daily traffic. Ultimately, operation of the WVWRF would not generate a significant traffic impact and no operational mitigation is required. Based on these findings, the proposed Project would not cause significant unavoidable adverse impacts to the area circulation system.

4.18 Tribal Cultural Resources: As described in Subchapter 4.18 of the DEIR, the consultation with Agua Caliente Band of Cahuilla Indians indicated that the Tribe believes tribal cultural resources may exist within the project footprint. The WVWRP can be implemented without any

significant impacts to tribal cultural resources with mitigation to ensure that the Agua Caliente Band of Cahuilla Indians has a tribal monitor on site during excavation activities. Therefore, based on this information, the Project would not cause significant unavoidable adverse impacts to tribal cultural resources.

4.19 Utilities and Service Systems: As described in Subchapter 4.19 of this DEIR, under the proposed WVWRP, solid wastes will increase as a result of the construction of the WVWRF and conveyance system; it is anticipated that nearby landfills have adequate capacity to handle waste generated by the proposed operations and landfills, and as such the WVWRP would not result in a significant impact to solid waste. The WVWRF would require connection to Southern California Edison (SCE) to operate and would require some electricity during construction activities, but no significant impacts energy impacts are anticipated to occur. Furthermore, the WVWRP is not anticipated to require natural gas to operate. The WVWRP proposes to install a wastewater treatment plant and associated conveyance system, the impacts of implementing this facility, as discussed throughout this document, are less than significant with mitigation incorporated in many cases. As such, the expansion of MSWD's sewage service area through the implementation of the WVWRP would be less than significant. The WVWRP's demand for potable water was determined to be less than significant based on the projected availability of potable water in MSWD's service area. Mitigation is required to ensure that all runoff is directed towards the proposed infiltration basins at the WVWRF or is otherwise contained to prevent offsite runoff; it is anticipated that impacts related to stormwater runoff will be less than significant. Similarly, because there would be no requirement for the construction of new or expanded drainage facilities to serve the proposed project, no impacts are anticipated to occur as a result of construction of the proposed sewer pipeline alignment. With adherence to and implementation of the mitigation measures identified in Subchapter 4.19, as well as through compliance with existing regulations, the proposed Project's potential water, wastewater, recycled water, solid waste, and electric and natural gas impacts can be controlled and will be reduced below a level of significance.

The Executive Summary of potential Project impacts is presented in Table 1-2.

1.6 ALTERNATIVES

The California Environmental Quality Act (CEQA) and the State CEQA Guidelines require an evaluation of alternatives to the proposed action. Section 15126 of the State CEQA Guidelines indicates that the "discussion of alternatives shall focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of not significant...." The State Guidelines also state that "a range of reasonable alternatives to the project.... which could feasibly attain the basic objectives of the project" and "The range of alternatives required in an EIR is governed by 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." The detailed analyses of the alternatives evaluated are provided in Chapter 5 of this Program DEIR. This evaluation addresses those alternatives for feasibility and a range of alternatives required to permit decision-makers a reasoned choice between the alternatives. Refer to Table 1-1 for a tabular comparison of alternatives.

The proposed Project objectives are to expand the District's GQPP to protect and preserve the quality of its most valuable natural resource, groundwater; to improve groundwater quality by removing individual septic systems and treating wastewater for constituents of concern; to increase the capacity at the Horton Wastewater Treatment Plant by diverting a portion of the existing sewered areas to the proposed WVWRF; and to maximize future water resources within

the MSWD service area by treating the wastewater to a level that it can be directly used to offset potable water demand for landscape irrigation within the District's service area. In this instance the DEIR analysis in Chapter 4 has reached a finding that there are no unavoidable significant adverse effects from implementing the Project as proposed in Chapter 3, the Project Description.

1.6.1 No Project Alternative

One of the alternatives that must be evaluated in an EIR is the "no project alternative," regardless of whether it is a feasible alternative to the proposed Project, i.e. would meet the Project objectives or requirements. Under this alternative, the environmental impacts that would occur if the proposed Project is not approved and implemented are identified. The No Project Alternative (NPA) is required under CEQA to evaluate the environmental effects associated with no action on the part of the Lead Agency. The NPA assumes the WVWRF site remains undeveloped, the conveyance pipeline system remains undeveloped, and GQQP Area M-2 remains on septic. This alternative evaluates the environmental impacts resulting from a hypothetical continuation of the existing land use. The WVWRF site has never been developed, as such the NPA would assume that this site will remain vacant. Additionally, the pipelines would not be installed, and as a result, Area M-2 would continue to use individual septic systems and would remain disconnected from MSWD's sewer service area. This could potentially result in further damage to the groundwater which underlies this area over time, especially given that the District is experiencing groundwater degradation from septic systems within its service area; i.e., the NPA is not a feasible alternative to the proposed Project and has a potential to cause a significant impact.

1.6.2 Off-Site Infiltration Basins Alternative

MSWD owns an 80-acre site located about 2 miles north of the proposed treatment plant that could potentially be used to locate infiltration basins. This 80-acre site is situated over the Mission Creek groundwater subbasin. AECOM performed preliminary geotechnical testing of the 80-acre site. Findings show that the soils at the second site have percolation rates similar to the proposed treatment plant site. The basis of design for sizing infiltration basins at the 80-acre site is expected to be the same as the basis of design for the proposed treatment plant site. The only difference is that a new effluent pumping system would be required to deliver effluent from the proposed treatment plant to the 80-acre site. In some cases, construction of the Off-Site Infiltration Basin Alternative would require additional construction that could intensify impacts to a small degree, none of which would result in a significant impact for any issue. Considering that offsite infiltration basins would require additional cost for installation and operation of an effluent pump station and conveyance pipeline, and will require similar-sized basins, the proposed infiltration basins are recommended to be located at the treatment plant site. Ultimately, neither the Off-Site Infiltration Basin Alternative nor the proposed Project would result in significant impacts for any issue under CEQA.

1.6.3 Discussion

Of the three alternatives considered, the Off-Site Infiltration Basin Alternative has been determined to be the environmentally superior alternative. This is because, though the NPA would have fewer environmental impacts, the potentially significant impact to groundwater quality that could occur over time from leaving the septic systems within Area M-2 in place would outweigh the impacts from any other alternative because no significant impacts are

projected to occur from implementation of the WVWRP. With respect to the Off-Site Infiltration Basin Alternative, the main reason that it would be the environmentally superior alternative is that the impact to hydrology at the off-site location from the infiltration basins would require less mitigation to prevent a significant impact from occurring to the underlying water quality. Neither the Off-Site Infiltration Basin Alternatives, nor the proposed WVWRP would cause a significant impact under any issue.

1.7 AREAS OF CONTROVERSY

No areas of controversy are known or have been expressed by the surrounding communities.

1.8 SUMMARY OF IMPACTS AND AVOIDANCE, MINIMIZATION AND MITIGATION MEASURES DISCUSSED IN THIS DRAFT EIR

Table 1-2 provides a summary of all impacts and mitigation measures identified in the detailed environmental evaluation presented in Chapter 4 of this DEIR. This summary is meant to provide a quick reference to proposed Project impacts, but the reader is referenced to Chapter 4 to understand the assumptions, method of impact analysis and rationale for the findings and conclusions presented in Table 1-2.

**Table 1-1
TABULAR COMPARISON OF PROJECT ALTERNATIVES**

| | <i>Would the Project/Alternative Result in Significant Adverse Impacts to the Resource Issues of ...?</i> | | | Which Alternative is Environmentally Superior? |
|---------------------------------------|---|-------------------------------------|--|---|
| | Proposed Project | No Project Alternative (NPA) | Off-Site Infiltration Basin Alternative | |
| Aesthetics | No | No | No | NPA |
| Agricultural | No | No | No | Alternatives are equal |
| Air Quality | No | No | No | NPA |
| Biological Resources | No | No | No | NPA |
| Cultural Resources | No | No | No | NPA |
| Geology and Soils | No | No | No | NPA |
| Greenhouse Gas / Climate Change | No | No | No | NPA |
| Hazards and Hazardous Materials | No | No | No | NPA |
| Hydrology and Water Quality | No | Potentially, Yes | No | Off-Site Infiltration Basin |
| Land Use / Planning | No | No | No | Alternatives are equal |
| Mineral Resources | No | No | No | Alternatives are equal |
| Noise | Yes | No | No | NPA |
| Population / Housing | No | No | No | NPA |
| Public Services | No | No | No | NPA |
| Recreation | No | No | No | NPA |
| Transportation / Traffic | No | No | No | NPA |
| Utilities and Service Systems | No | No | No | NPA |
| <i>Would Meet Project Objectives?</i> | Yes | No | Yes | - |

Table 1-2
SUMMARY OF IMPACTS AND AVOIDANCE, MINIMIZATION AND MITIGATION MEASURES DISCUSSED IN THIS DRAFT EIR

| Environmental Category / Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
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| AESTHETICS | | |
| 4.2-1 | Proposed facilities shall be designed in accordance with local design standards and integrated with local surroundings. Landscaping shall be installed in conformance with local landscaping design guidelines as appropriate to screen or break up views of new facilities and to integrate facilities with surrounding areas. | Mission Springs Water District (MSWD) |
| 4.2-2 | The proposed WWRF structures shall be painted in a color that closely matches the color of the surrounding desert area so as to create continuity in area views. | MSWD |
| 4.2-3 | Lighting shall be limited to the minimum height, number and intensity of fixtures needed to provide security and identification in residential, commercial and industrial development, taking every reasonable measure to preserve the City's night skies. | MSWD |
| Impact Description | | Impact After Mitigation |
| The existing visual setting of the proposed Project site will be permanently altered. The intensification of development greater than that which presently occurs on the site will change the visual setting. However, due to this project's required visual consistency with the adopted General Plan land use designation, this impact has been determined to be a less than significant aesthetic impact; however, mitigation is required to prevent a significant impact from occurring. | | Mitigation to minimize the potential for intrusive light and ensure that glare from night lighting does not become a significant effect from implementing the proposed project. Additionally, the WWRF site is located in a rural setting, so mitigation shall be implemented to ensure that the WWRF is integrated into the surrounding setting, and that the paint color of the WWRF is consistent with the surrounding setting. Therefore, though there will be an associated change in the visual setting, this change in view is considered less than significant and will not result in a significant and unavoidable aesthetic impact. |

| Environmental Category / Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
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| AGRICULTURE AND FORESTRY RESOURCES No mitigations required. | | -- |
| Impact Description | | Impact After Mitigation |
| The WWWRP footprint includes land designated as "other land" "urban and build-up land," and "rural residential land." Given the lack of designated agricultural resources, implementation of the WWWRP would not interfere with any Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) or any timberland resources. | | Since the proposed Project will not have an adverse impact on significant agricultural resources or resource values, it cannot make a cumulatively considerable contribution to such resources or values. |

| Environmental Category / Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
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| AIR QUALITY | | |
| 4.4-1 | <p>The following fugitive dust control measures shall be incorporated into Project plans and specifications for implementation:</p> <ul style="list-style-type: none"> • 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. | MSWD |
| 4.4-2 | <p><u>Exhaust Emissions Control</u></p> <ul style="list-style-type: none"> • 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. | MSWD |
| Impact Description | | Impact After Mitigation |
| <p>The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that after implementation of the recommended mitigation measures, neither construction or operation of the proposed Project would result in any exceedance of thresholds for a criteria pollutant. Furthermore, the Project is consistent with the AQMP; the air quality impact for Project-related Localized Significance Thresholds (LST) impacts, including construction of the WWRF and of the pipeline alignment, are considered to be less than significant; and, sensitive receptors would not be subject to a significant air quality impact during Project construction or operations.</p> | | <p>Construction emissions and LSTs are well below the SCAQMD thresholds even before implementation of mitigation. However, implementation of the mitigation measures, including Best Available Control Measures (BACMs) and Rules can reduce potentially significant construction-related air quality impacts to the greatest extent feasible.</p> |

| Environmental Category / Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
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| BIOLOGICAL RESOURCES | | |
| 4.5-1 | <p>Within 30 days prior to commencement of construction activity, a clearance survey shall be conducted by a qualified biologist to determine if any burrowing owl or their burrows are located within the potential area of impact. If occupied burrows may be impacted, an impact minimization plan shall be developed by the biologist that shall protect the burrow in place or provide for closure and relocation to an alternate burrow within the vicinity but outside of the project footprint in accordance with current CDFW and Multiple Species Habitat Conservation Plan (MSHCP) burrowing owl guidelines, including preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP). Active nests must be avoided until all nestlings have fledged.</p> | MSWD |

| Environmental Category / Avoidance, Minimization and Mitigation Measures | Responsible Agency |
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| <p>4.5-2 Although no desert tortoise were detected during the site surveys, habitat along the pipeline alignments is considered marginally suitable for this species. Therefore, a qualified biologist shall conduct one pre-construction clearance survey within 30 days prior to initiating construction. Following the pre-construction survey, the biologist will make a determination regarding tortoise mitigation: (1) if a biological monitor should be present at the site during all clearing and grubbing activities above grade; (2) if desert tortoise fencing needs to be installed around the perimeter of the construction work zone; or (3) if no further action is required. The biologist/monitor should remain on-call during construction activities to respond to a circumstance where a desert tortoise wanders into the construction area.</p> | MSWD |
| <p>4.5-3 The removal of potential nesting vegetation of native bird species shall be conducted outside of the nesting season (Raptor nesting season is February 15 through July 31; and migratory bird nesting season is March 15 through September 1). If vegetation must be removed during nesting season, a qualified biologist shall conduct a nesting bird survey of potentially suitable nesting vegetation prior to removal. Surveys shall be conducted no more than three days prior to scheduled ground disturbing activity. 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. If clearing is not conducted within three days of a negative survey, the nesting survey must be repeated to confirm the absence of nesting birds.</p> | MSWD |
| <p>4.5-4 Prior to issuance of grading permits for the project site, the site developer shall implement the Determination of Biologically Equivalent or Superior Preservation (DBESP) document and regulatory permits for disturbance of approximately 1.33-acre state and federal jurisdictional features on site. Any proposed permanent or temporary impacts to these features will require a Streambed Alteration Agreement from the CDFW, as well as CWA Sections 401/404 permits from the RWQCB and USACE.</p> <p>Alternatively, MSWD shall determine whether it is feasible to re-design <u>some</u> of the portions of the WVWRF that would impact these state and federal jurisdictional features to a location within the WVWRF site that would permanently impact the jurisdictional features totaling no more than ½ acre or 300 linear feet, which would enable MSWD to obtain a Nationwide Permit from the USACE, instead of an Individual Permit should development of the WVWRF result in greater than ½ acre or 300 linear feet of permanent impacts.</p> <p>As a second alternative, MSWD shall determine whether it is feasible to re-design <u>all</u> of the portions of the WVWRF that would impact these state and federal jurisdictional features to a location within the WVWRF site that would avoid and therefore, not impact these features. If it is feasible to avoid the jurisdictional features within the WVWRF site, MSWD shall not be required to obtain any regulatory permits.</p> | MSWD |
| <p>4.5-5 MSWD shall adhere to Section 4.5 of the Coachella Valley Multi-Species Habitat Conservation Plan (CVMSHCP) Guidelines as follows:</p> <ol style="list-style-type: none"> 1. Drainage – Proposed Development adjacent to or within a Conservation Area shall incorporate plans to ensure that the quantity and quality of runoff discharged to the adjacent Conservation Area is not altered in an adverse way when compared with existing conditions. Stormwater systems shall be designed to prevent the release of toxins, chemicals, | MSWD |

| Environmental Category / Avoidance, Minimization and Mitigation Measures | Responsible Agency |
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| <p>petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the adjacent Conservation Area.</p> <ol style="list-style-type: none"> 2. Toxics – Land uses proposed adjacent to or within a Conservation Area that use chemicals or generate byproducts such as manure that are potentially toxic or may adversely affect wildlife and plant species, Habitat, or water quality shall incorporate measures to ensure that application of such chemicals does not result in any discharge to the adjacent Conservation Area. 3. Lighting – For proposed Development adjacent to or within a Conservation Area, lighting shall be shielded and directed toward the developed area. Landscape shielding or other appropriate methods shall be incorporated in project designs to minimize the effects of lighting adjacent to or within the adjacent Conservation Area in accordance with the guidelines to be included in the Implementation Manual. 4. Noise – Proposed Development adjacent to or within a Conservation Area that generates noise in excess of 75 dBA Leq hourly shall incorporate setbacks, berms, or walls, as appropriate, to minimize the effects of noise on the adjacent Conservation Area in accordance with the guidelines to be included in the Implementation Manual. 5. Invasives – Invasive, non-native plant species shall not be incorporated in the landscape for land uses adjacent to or within a Conservation Area. Landscape treatments within or adjacent to a Conservation Area shall incorporate native plant materials to the maximum extent Feasible; recommended native species are listed in Table 4-112 [of the CVMSHCP]. The plants listed in Table 4-113 [of the CVMSHCP] shall not be used within or adjacent to a Conservation Area. This list may be amended from time to time through a Minor Amendment with Wildlife Agency Concurrence. 6. Barriers – Land uses adjacent to or within a Conservation Area shall incorporate barriers in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping in a Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls and/or signage. 7. Grading/Land Development – Manufactured slopes associated with site Development shall not extend into adjacent land in a Conservation Area. <p>MSWD shall pay required MSHCP fees and restrict all project related impacts to existing ROW and/or other areas outside of the Conservation Areas.</p> | |
| Impact Description | Impact After Mitigation |
| <p>As described in Subchapter 4.5, the proposed Project will develop the site at a substantially greater intensity than currently exists or can occur under existing circumstances. The Biological Resource Assessment (Appendix 3, Volume 2) as summarized in the preceding section identified three potential adverse impacts to biological resources: presence of BUOW habitat and desert tortoise habitat on the project site; potential to adversely impact birds during the nesting season; and impacts to jurisdictional waters requiring MSWD to acquire several permits.</p> | <p>Mitigation has been provided to ensure that the MSHCP Guidelines will be implemented. Additionally, mitigation is available to protect BUOW and desert tortoise from implementation of the proposed project. Mitigation is provided to protect nesting birds during construction of the WVWRP. Finally, mitigation is provided to ensure the MSWD obtains the appropriate permits that would off-set impacts to jurisdictional waters on site. Based on compliance with the required mitigation, the proposed Project will not result in direct impacts to biological resources that would be cumulatively considerable or cause significant unavoidable adverse impacts.</p> |

| Environmental Category /Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
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| CULTURAL RESOURCES – ARCHAEOLOGICAL | | |
| 4.6-1 | 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 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. | MSWD |
| 4.6-2 | 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 District'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. | MSWD |
| Impact Description | | Impact After Mitigation |
| Unanticipated and unknown archaeological resources may be unearthed during construction, which could cause a significant impact to cultural resources. The proposed project's potential to impact significant historical, archaeological, or paleontological resources was determined to be low. However, As such, mitigation is required to prevent a significant impact. | | Mitigation will reduce potential impacts by ensuring that the construction earth work will halt in the unlikely event of unearthed archaeological discoveries, and by ensuring that any such resources will be protected in place where possible, or sensitively recovered if preservation in place is not feasible. Additionally, Mitigation would reduce the potential for impacts to paleontological resources by requiring monitoring, and placing specific performance measures on certain earth-moving operations. Further, the measure identifies methods for which identification and recovery of unexpected specimens will occur. Implementation of the proposed Project is not forecast to cause any direct, significant adverse impact to cultural resources with implementation of identified mitigation measures. The proposed Project has no potential to make a cumulatively considerable contribution to cultural resource impacts in the project area or MSWD in general. Further, based on the character of the proposed Project there is no indication of any possible indirect impacts. |

| Environmental Category / Avoidance, Minimization and Mitigation Measures | Responsible Agency |
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| <p>GEOLOGY AND SOILS</p> <p>4.7-1 Based upon the geotechnical investigation (Appendix 5 of Volume 2, Technical Appendices), the seismic design parameters identified within the document shall be implemented by the MSWD. Implementation of these specific measures will address all of the identified seismic related geotechnical constraints identified at WVVRF site. The recommended design and construction parameters include, but are not limited the parameters outlined in Table 4.7-1 of the DEIR, and also, as indicated on Page 4-2 of the 2018 Geotechnical Report, once the design has been formulated for the planned, a slope stability analyses shall be performed and MSWD shall conform to the recommendations thereof to ensure soil stability at the recharge basins.</p> | <p>MSWD</p> |
| <p>4.7-2 Based upon the geotechnical investigation (Appendix 5 of Volume 2, Technical Appendices), all of the recommended design and construction measures identified within the document shall be implemented by the Applicant. Implementation of these specific measures will address all of the identified geotechnical constraints identified at WVVRF site, including soil stability on future structures. These recommended design and construction measures include, but are not limited the following summarized categories/requirements (outlined in greater detail on Pages 5-1 through 5-13 of the 2018 Geotechnical Report):</p> <ul style="list-style-type: none"> • Earthwork <ul style="list-style-type: none"> ○ Site Clearing, Grubbing and Stripping ○ Temporary Excavations ○ Over-excavation ○ Subgrade Preparation ○ Excavation ○ Structural Fill beneath Structures ○ Fill Placement and Compaction ○ Trench Wall Stability <ul style="list-style-type: none"> ▪ Trench Preparation and Backfill ▪ General Considerations ▪ Subgrade Preparation ▪ Pipe Bedding ▪ Compaction of Bedding ▪ Pipe Zone and Final Backfill ▪ Imported Materials • Infiltration Basin <ul style="list-style-type: none"> ○ Design Recommendations ○ Site Clearing ○ Ground Preparation – Improvement Areas ○ Ground Preparation – Slope Facing ○ Fills/Backfills and Compaction ○ Imported Soils ○ Geotechnical Observations • Foundation Design <ul style="list-style-type: none"> ○ Allowable Bearing Values ○ Settlement | <p>MSWD</p> |

| Environmental Category / Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
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| <ul style="list-style-type: none"> ○ Resistance to Lateral Loads ○ Foundation Design Parameters ○ Slab On-Grade ○ Pavement Recommendations | | |
| Impact Description | Impact After Mitigation | |
| The geology and soils evaluation determined that the proposed project site does have substantial geotechnical and soil constraints. Adherence to the MSWD Sewer System Management Plan (SSMP) will mitigate impacts from sewage spills/overflows as a result of ground rupture. | Mitigation, in the form of standard conditions and limited mitigation measures, has been identified, that must be implemented to control exposure to potentially significant seismic impacts. With implementation of the recommended seismic design measures, structures and future persons working within these structures, can be adequately protected. The Program can be implemented without causing or experiencing significant unavoidable geology or soil impacts. | |

| Environmental Category / Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
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| GREENHOUSE GASES No mitigations required. | | -- |
| Impact Description | Impact After Mitigation | |
| As described in Subchapter 4.8, Greenhouse Gas (GHG), most individual projects, such as the proposed Project, cannot generate enough greenhouse gas emissions to effect a discernible change in global climate. The screening threshold of 3,000 MT of CO ₂ (e) GHG emissions will not be exceeded by the proposed Project (the total GHG construction emissions are 1,940.6). Both the construction and operations GHG emissions are far below the 3,000 MT CO ₂ (e) advisory threshold for impact significance. | With implementation of the recommended Air Quality mitigation measures identified Subchapter 4, the Air Quality Section of this Draft EIR, the project does not exceed the SCAQMD screening threshold of 3,000 MTCO ₂ e. Thus, the proposed Project would not result in new significant GHG impacts nor would it result in a substantial increase in the severity of GHG impacts with implementation of the identified Air Quality mitigation measures. Project-related GHG emissions are not considered to be significant or adverse and would not result in an unavoidable significant adverse impact on global climate change. | |

| Environmental Category /Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
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| HAZARDS AND HAZARDOUS MATERIALS | | |
| 4.9-1 | 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. | MSWD |
| 4.9-2 | During grading if an unknown contaminated area is exposed based on field observations by the contractor, soils engineer or City/County inspector, the following actions will be implemented: any contamination found during construction will be reported to the City Building & Safety Department, and Riverside County Site Cleanup Program and all of the sampling or remediation related to the contamination will be conducted under the oversight of the City Building & Safety Department, and Riverside County Site Cleanup Program; construction activities in the immediate area will be immediately stopped; appropriate regulatory agencies will be identified; a qualified professional (industrial hygienist or chemist) shall test the contamination and determine the type of material and define appropriate remediation strategies; 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 actions shall be documented and made available to the appropriate regulatory agencies prior to closure of the contaminated area (a determination of the regulatory agency that the site has been remediated to a threshold that poses no hazard to humans). | MSWD |
| Impact Description | | Impact After Mitigation |
| The conversion of vacant project site to a wastewater treatment plant development is a major modification to the project site. However, no major hazards or hazardous materials issues were identified at the project site. | | The hazards and hazardous materials evaluation in the DEIR concluded that the identified hazards on the project site can be adequately mitigated to a level of impact that is less significant. |

| Environmental Category / Avoidance, Minimization and Mitigation Measures | Responsible Agency |
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| <p>HYDROLOGY AND WATER QUALITY</p> <p>4.10-1 The construction contractor shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices that will be implemented to prevent construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving offsite. The SWPPP shall be developed with the goal of achieving a reduction in pollutants both during and following construction to control urban runoff to the maximum extent practicable based on available, feasible best management practices. The SWPPP and the monitoring program for the construction projects shall be consistent with the requirements of the latest version of the State's General Construction Activity Storm Water Permit and NPDES for projects within Riverside County.</p> <p>The following items should be included in the SWPPP:</p> <ul style="list-style-type: none"> • The length of trenches which can be left open at any given time should 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. • Backfill material should not be stored in areas which are subject to the erosive flows of water. • Measures such as the use of straw bales, sandbags, silt fencing or detention basins shall be used to capture and hold eroded material for future cleanup. • Rainfall will be prevented from entering material and waste storage areas and pollution-laden surfaces. • Construction-related contaminants will be prevented from leaving the site and polluting waterways. • Replanting and hydroseeding of native vegetation will be implemented to reduce slope erosion and filter runoff. • A spill prevention control and remediation plan to control release of hazardous substances. | MSWD |
| <p>4.10-2 The site design for WVWRP facilities shall prepare and implement a Water Quality Management Plan (WQMP) which specifies Best Management Practices that will be implemented to prevent long-term surface runoff from discharge of pollutants from sites on which construction has been completed. The WQMP shall be developed with the goal of achieving a reduction in pollutants following construction to control urban runoff pollution to the maximum extent practicable based on available, feasible best management practices.</p> | MSWD |
| <p>4.10-3 For long-term mitigation of site disturbances at the WVWRF site, all areas not covered by structures shall be covered with hardscape (concrete, asphalt, gravel, etc.), native vegetation and/or man-made landscape areas (for example, grass). Revegetated or landscaped areas shall provide sufficient cover to ensure that, after a two year period, erosion will not occur from concentrated flows (rills, gully, etc.) and sediment transport will be minimal as part of sheet flows.</p> | MSWD |
| <p>4.10-4 Within the WVWRF and Conveyance Pipeline Alignments associated with the WVWRP that will impact more than one acre, surface runoff from upstream shall be collected and discharged in a manner downstream of the site that does not increase downstream flood hazards. Onsite surface runoff shall be collected and retained (for use onsite) or detained and percolated into the ground on the site such that site development results in no net increase in offsite stormwater flows. Detainment shall be achieved through Low Impact Development techniques whenever possible, and shall include techniques that remove the majority of urban storm runoff pollutants, such as petroleum products and sediment. The purpose of this measure is to remove the onsite contribution to cumulative urban storm runoff and ensure the discharge from the sites is treated to reduce contributions of urban pollutants to downstream flows and to groundwater. If it is not possible to eliminate stormwater flows from leaving a site, the facility shall not be constructed until a drainage study has been conducted that verifies that there will be no adverse impacts to downstream stormwater management from implementation of the site development.</p> | MSWD |

| Environmental Category / Avoidance, Minimization and Mitigation Measures | Responsible Agency |
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| <p>4.10-5 Prior to the WWRWF startup, a Groundwater Monitoring Well Network Plan shall be developed and submitted to the Regional Board for review with information on monitoring well locations and specifications. One groundwater monitoring wells should be placed as a sentinel well between the percolation ponds and MSWD Well 33. At least three monitoring wells should be installed, and the groundwater monitoring and sampling program initiated at least one year prior to WWRWF startup to establish baseline groundwater quality for future comparisons, including statistical analyses to demonstrate representative constituents of concern (COC) concentrations:</p> <ul style="list-style-type: none"> • A minimum of one upgradient and two down-gradient wells should be installed; • Groundwater monitoring well network COC to be sampled and evaluated: Total Dissolved Solids (TDS), Total Nitrogen/Nitrate-As Nitrogen, Chloride, Sulfate, and Total Coliform; • Within 6-months of Regional Board Order: Submit Groundwater Monitoring Network Work Plan; and • After Startup: Technical Report with descriptions present conditions, adequacy of monitoring effects of the discharge from the disposal ponds on groundwater, including necessary figures/maps tables, appendices, and appropriate statistical analysis for relevant COC (TDS, and total nitrogen/nitrate-as nitrogen) and any recommended changes to monitoring locations, frequency, protocol, or quality assurance/quality control (QA/QC). | MSWD |
| <p>4.10-6 If MSWD observes the water quality at MSWD Well 33 degrading during monitoring efforts outlined in MM 4.10-5, a Remediation Plan shall be prepared to ensure that the degradation does not substantially exceed the forecast in the antidegradation analysis.</p> <p>The Remediation Plan shall demonstrate that the degradation will not exceed the antidegradation forecast based on implementing the additional treatment measures to stay within the forecast. This Remediation Plan shall be reviewed by the Colorado River Basin Regional Water Quality Control Board.</p> | MSWD |
| <p>4.10-7 Should the Regional Board request MSWD to perform additional work or implement other options, the following options shall be considered and implemented where applicable:</p> <p><u>Effluent Limit Feasibility Study</u> The first 6-months to 1-year of actual WWRWF effluent quality and groundwater monitoring well data after startup could be used to perform a cost-benefit analysis of effluent TDS/salt removal alternatives that may be appropriate in future. If it's deemed necessary depending on the results, complete an influent TDS study.</p> <p><u>Influent TDS Study</u> A Influent TDS Study may be warranted to evaluate the proposed incremental increase in TDS/salt as water quality impact (WQI) above source water background levels and the impact that such discharge could have on the beneficial uses of the receiving aquifer: characterize influent TDS/salt and domestic/commercial sources within sewage collection system, alternatives for minimizing TDS/salt contribution from identified sources with costs comparison in dollars per ton to remove salt from influent (MSWD may need to work toward reducing combined the proposed WWRWF influent and effluent TDS/salt concentrations).</p> <p>MSWD may also have to consider practicality of achieving a reduced incremental TDS increase, whether a 460 mg/L assimilative capacity measure for lower quality Mission Creek Subbasin is relevant to Garnet Hill Subbasin proposed for TDS at 500 mg/L, and if the increase is not practicable, MSWD would have to show 1) impacts of proposed TDS/salt input</p> | MSWD |

| Environmental Category / Avoidance, Minimization and Mitigation Measures | Responsible Agency |
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| <p>each year in terms of tons per year and concentration; 2) cost per ton of TDS/salt removed for each alternative; 3) capability of minimizing TDS/salt discharges; 4) proposed values for the practical incremental increase; and, 5) justification for the proposed practical incremental increased values.</p> <p><u>Prohibition of Well Installations</u> An interim local (city/county/district) regulation/ordinance could be set forth to prevent the installation of additional wells in a specified area of the Garnet Hills Subbasin Management Zone (MZ) as a form of administrative/governmental control. As a potable municipal supply would be alternately be available for relevant properties, an interim ordinance would serve as an assurance on providing for aquifer quality for the known and anticipated beneficial groundwater uses during the time of Phase I WVWRF discharges. A review and re-evaluation of the needs for continuing any such prohibition should be completed as the Phase II tertiary treatment discharges are planned.</p> <p><u>Nitrogen Removal in Shallow Percolation Ponds</u> Rafts of floating plants may be placed and maintained in percolation ponds to help limit the amount of nitrogen available for infiltration. These rafts would contain heat/water-philic plants appropriate for the site conditions that would utilize nutrients in the effluent for growth.</p> | |
| <p>4.10-8 All water secondary effluent percolation operations shall be monitored, and if impacts that were not forecast to occur as a result of the WVWRF operations (outlined in the Antidegradation Analysis and Groundwater Monitoring Report, Appendices 7a and 7b, Volume 2 of this DEIR) cause unexpected significant adverse impact on the groundwater aquifer, the WVWRF operations shall be terminated or modified to eliminate the adverse impact.</p> | MSWD |
| Impact Description | Impact After Mitigation |
| <p>Limited degradation of groundwater quality from increased TDS concentrations at the percolation sites has been identified, but based on the whole of the antidegradation analysis, the extent of groundwater quality degradation was determined to a less than significant impact, with the implementation of mitigation measures. Future construction and operation impacts on surface water quality will be controlled through implementation of mandatory best management practices that is required to meet regulatory requirements through the implementation of a SWPPP during short-term construction activities and a WQMP during the long-term operations of the WVWRF and associated WVWRP facilities.</p> | <p>With implementation of the required mitigation, the hydrology and water quality analysis in the DEIR concluded that the project can be development without causing significant adverse effects on drainage and water quality resources/ issues.</p> |

| Environmental Category / Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
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| LAND USE / PLANNING No mitigations required. | | -- |
| Impact Description | Impact After Mitigation | |
| As described in Subchapter 4.11, the proposed project is consistent with the relevant goals and policies of the Southern California Association of Governments (SCAG) Regional Comprehensive Plan, the City's General Plan Land Use Element (including those goals and policies relating to the Economic Development Corridor [EDC] specifically), and the City's Municipal Code (including those code sections relating to the EDC specifically). The project site is also consistent within the CVMSHCP planning area. | The proposed project will result in unavoidable short-term changes in the hydrology and water quality of the Garnet Hill Subbasin MZ4, but the proposed phases of expansion of the WVVWRF—which will ultimately be necessary to support the growth of the surrounding community—and identified mitigation measures will reduce these potential impacts to a less than significant level. Long-term (permanent) changes in storm flows at the proposed WVVWRF site will also be controlled to a less than significant level through mitigation. | |

| Environmental Category / Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
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| MINERAL RESOURCES No mitigations required. | | -- |
| Impact Description | Impact After Mitigation | |
| The project site and surrounding area do not contain any existing mineral development nor any identified potential for mineral resource development. Development of the proposed Project will not cause any adverse impacts to mineral resource or values. | The proposed Project has no potential to contribute to any cumulative loss of mineral resources or values. The Project will have no cumulative adverse impact to mineral resources. | |

| Environmental Category / Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
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| NOISE | | |
| 4.13-1 | During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. | MSWD |
| 4.13-2 | The construction contractor shall place all stockpiling and staging activities as far as practicable from dwellings. | MSWD |
| 4.13-3 | Within the City of Desert Hot Springs, construction shall be limited to the hours of 7 am to 5 pm Monday thru Saturday. During daylight savings time, construction shall be limited to the hours are 6 am to 6 pm. Construction shall not be permitting on Sundays. | MSWD |

| Environmental Category /Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
|---|--|--------------------|
| 4.13-4 Within the County of Riverside, whenever a construction site is located within one-quarter (1/4) mile of an occupied residence(s), construction activities shall be limited to the hours of 6:00 a.m. and 6:00 p.m. during the months of June through September and between the hours of 6:00 a.m. and 7:00 p.m. during the months of October through May. | | MSWD |
| Impact Description | Impact After Mitigation | |
| The noise evaluation presented above indicates that the proposed project does not have the potential to cause potentially significant and unavoidable adverse noise impacts from implementing the WVWRP. Noise conditions will be unavoidably altered by implementation of the proposed project, in both the short- and long-term, but this change in noise condition is not forecast to result in significant adverse impacts with implementation of mitigation measures listed above. | As described in Subchapter 4.13, mitigation measures have been identified that can reduce both short-term noise impacts below a significant level; long-term noise impacts from the operation of the WVWRF are considered less than significant without the need for added mitigation. | |

| Environmental Category /Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
|---|---|--------------------|
| POPULATION AND HOUSING No mitigation required. | | -- |
| Impact Description | Impact After Mitigation | |
| As described in Subchapter 4.14, the proposed project would not induce population growth beyond that which has been planned for in the City General Plan or SCAG planning documents, or that can be accommodated by the project and the City. | No mitigation is required. Impacts are less than significant. | |

| Environmental Category /Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
|--|---|--------------------|
| PUBLIC SERVICES – FIRE PROTECTION No mitigation required. | | MSWD |
| Impact Description | Impact After Mitigation | |
| Due to the limited population increase that would occur as a result of implementation of the WVWRP, the demand for public services (fire, sheriff, schools, libraries, etc.) would be minimal. The WVWRF would be fenced, and as such would limit any random trespass, and the proposed land use is not such that the potential for fire at the site would be significant. As such, the impact for each type of public service was determined to be less than significant; the proposed project has no potential to cause any unavoidable adverse impacts to population and housing in the project area. | No mitigation is required. Impacts are less than significant. | |

| Environmental Category /Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
|--|---|--------------------|
| RECREATION No mitigations required. | | |
| Impact Description | Impact After Mitigation | |
| Under the proposed WVWRP, no recreational facilities are proposed. The potential increase of 20 persons under the WVWRP would be minimal relative to the forecasted growth anticipated to occur within the City and the overall Coachella Valley in the next decades, and therefore, would not increase the use of existing regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Based on these findings, the proposed Project would not cause significant unavoidable adverse impacts to the area recreation resources. acres of deficit onsite park area. | No mitigation is required. Impacts are less than significant. | |

| Environmental Category /Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
|--|--|--------------------|
| TRANSPORTATION / TRAFFIC 4.17-1 The construction contractor will provide adequate traffic management resources, as determined by the County of Riverside and the City of Desert Hot Springs. MSWD shall require a construction traffic management plan for work in public roads that complies with the Work Area Traffic Control Handbook, or other applicable standard, to provide adequate traffic control and safety during excavation activities. The traffic management plan shall be prepared and approved by the City and County prior to initiation of excavation or pipeline construction. At a minimum this plan shall include how to minimize the amount of time spent on construction activities; how to minimize disruption of vehicle and alternative modes of transport traffic at all times, but particularly during periods of high traffic volumes; how to maintain safe traffic flow on local streets affected by construction at all times, including through the use of adequate signage, protective devices, flag persons or police assistance to ensure that traffic can flow adequately during construction; the identification of alternative routes that can meet the traffic flow requirements of a specific area, including communication (signs, webpages, etc.) with drivers and neighborhoods where construction activities will occur; and at the end of each construction day roadways shall be prepared for continued utilization without any significant roadway hazards remaining. | | MSWD |

| Environmental Category /Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
|--|---|---|
| 4.17-2 | 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 Riverside and the City of Desert Hot Springs standard design requirements. | MSWD |
| Impact Description | | Impact After Mitigation |
| Construction is not anticipated to result in a doubling of peak hour traffic, and overall is not anticipated to result in any significant traffic impacts. Construction requires mitigation to implement a congestion management plan, and to ensure that the roadways within which the pipeline will be installed are returned to their original condition. In the long-term, operation of the WVWRP will generate minimal traffic. Ultimately, operation of the WVWRF would not generate a significant traffic impact and no operational mitigation is required. | | Impacts to nearby roadways during construction can be mitigated through implementation of mitigation to ensure that a construction traffic management program is put in place, and to ensure that the roadways are returned to their original or better conditional. No significant impact would occur. |

| Environmental Category /Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
|--|---|--|
| TRIBAL CULTURAL RESOURCES | | |
| 4.18-1 | MSWD shall retain or allow the Agua Caliente Band of Cahuilla Indians (Tribe) to retain an approved Agua Caliente Native American Cultural Resource Monitor(s) during any ground disturbing activities (including archaeological testing and surveys). Furthermore, should any cultural resources be encountered, the Monitor may request that destructive construction halt and the Monitor shall notify a Qualified Archaeologist (Secretary of 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. | MSWD |
| Impact Description | | Impact After Mitigation |
| Based on the research results summarized above, no historical or archaeological resources occur within the project site, but a low potential exists to expose subsurface resources. The consultation with Agua Caliente Band of Cahuilla Indians indicated that the Tribe believes tribal cultural resources may exist within the project footprint. | | The WVWRP can be implemented without any significant impacts to tribal cultural resources with mitigation to ensure that the Agua Caliente Band of Cahuilla Indians has a tribal monitor on site during excavation activities. Therefore, based on this information, the Project would not cause significant unavoidable adverse impacts to tribal cultural resources. |

| Environmental Category /Avoidance, Minimization and Mitigation Measures | | Responsible Agency |
|---|---|---|
| UTILITIES AND SERVICE SYSTEMS | | |
| 4.19.2-1 | <u>Implementation of a Drainage Plan to Reduce Downstream Flows.</u> Prior to construction of project facilities, MSWD shall prepare a drainage plan that includes design features to reduce stormwater peak concentration flows exiting the above ground facility sites so that the capacities of the existing downstream drainage facilities are not exceeded. These design features could include bioretention, sand infiltration, return of stormwater for treatment within the treatment plant, and/or detention facilities. | MSWD |
| 4.19.4-1 | The contract with the contractors shall include the requirement that all materials that can feasibly 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. | MSWD |
| Impact Description | | Impact After Mitigation |
| Under the proposed WVWRP, solid wastes will increase as a result of the construction of the WVWRF and conveyance system; it is anticipated that nearby landfills have adequate capacity to handle waste generated by the proposed operations and landfills, and as such the WVWRP would not result in a significant impact to solid waste. The WVWRF would require connection to Southern California Edison (SCE) to operate and would require some electricity during construction activities, but no significant impacts energy impacts are anticipated to occur. Furthermore, the WVWRP is not anticipated to require natural gas to operate. The WVWRP's demand for potable water was determined to be less than significant based on the projected availability of potable water MSWD's service area. Mitigation is required to ensure that all runoff is directed towards the proposed infiltration basins at the WVWRF or is otherwise contained to prevent offsite runoff; it is anticipated that impacts related to stormwater runoff will be less than significant. Similarly, because there would be no requirement for the construction of new or expanded drainage facilities to serve the proposed project, no impacts are anticipated to occur as a result of construction of the proposed sewer pipeline alignment. | | The analysis of utility issues in Subchapter 4.18 impacts from implementing the WVWRF, as discussed throughout this document, are less than significant with mitigation incorporated in many cases. As such, mitigation is required to ensure that all runoff is directed towards the proposed infiltration basins at the WVWRF or is otherwise contained to prevent offsite runoff; it is anticipated that impacts related to stormwater runoff will be less than significant. Mitigation is also required to ensure that all materials that can be recycled are salvaged or recycled. No significant impacts are anticipated once mitigation is employed. |

CHAPTER 2 – INTRODUCTION

2.1 BACKGROUND

MSWD 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 currently has 9,100 sewer connections throughout its service area.

MSWD is implementing its Groundwater Quality Protection Program (GQPP) with objectives to remove from service individual septic systems that overlie the Mission Creek and Desert Hot Springs groundwater sub-basins, collect and treat the wastewater, and ultimately replenish the Mission Creek sub-basin. The GQPP is intended to protect groundwater quality from degradation by discharges from septic drainfields. The GQPP would ultimately remove more than 7,200 septic tanks for connection to MSWD's sewer system. As the GQPP implementation progresses, it has created the need for additional sewage treatment capacity within the MSWD service area. This added sewage flow would be diverted to the planned MSWD West Valley Water Reclamation Facility (WVWRF) located along the west side of Little Morongo Road, between 19th Avenue and 20th Avenue. The proposed site consists of 60-acres of undeveloped land owned by MSWD. In support of the development of the WVWRF, the overall Program would also construct a conveyance system connecting existing sewer areas to the WVWRF, and construct a collection system for GQPP Area M2 (to be served by the WVWRF).

The WVWRF would be constructed in phases with ultimate "build-out" capacity of up to 20 million gallons per day (MGD). The first phase would have an initial maximum average treatment capacity of 1.5 MGD. The WVWRF would be planned, designed, and implemented to permit MSWD to allow further expansion with minimal demolition and removal of any Phase 1 facilities.

Based on the findings of the Notice of Preparation (NOP), MSWD concluded that a Program Environmental Impact Report (EIR) should be prepared to address the potential impacts from proposed Project. The decision to prepare an EIR was based on the finding that the proposed Project may have one or more significant effects on the existing Project environment and surrounding environment as is documented in the NOP, provided as Subchapter 8.1 of this document.

MSWD has prepared the West Valley Water Reclamation Program (WVWRP) DEIR that evaluates the potential environmental impacts that would result from constructing and implementing the proposed Project.

2.2 PURPOSE AND USE OF AN EIR

CEQA was adopted to assist with the goal of maintaining the quality of the environment for the people of the State. Compliance with CEQA, and its implementing guidelines, requires that an agency making a decision on a project (defined as an action that can change the physical environment) must consider its potential environmental effects/impacts before granting any approvals or entitlements. Further, the State adopted a policy "that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." Thus, an agency, in this case MSWD, must examine feasible alternatives and identify feasible mitigation measures as part of the environmental review process. CEQA also states

"that in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof." (§21002, Public Resources Code)

When applied to a specific project, such as the proposed West Valley Water Reclamation Program, MSWD is required to identify the potential environmental impacts of implementing the project; and, where potential significant impacts are identified, MSWD must determine whether there are feasible mitigation measures or alternatives that can be implemented to avoid or substantially lessen significant environmental effects of a project. The first step in this process, determination that an Environmental Impact Report (EIR) is required and issuance of a NOP, has been completed for the WVWRP. This constitutes the "project being considered for approval and implementation" by MSWD. Based on the information in the NOP, MSWD concluded an EIR should be prepared to address any potential significant impacts that may result from implementation of the proposed Project.

The following environmental issues will be analyzed in this EIR: aesthetics, agricultural and timberland resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gases/climate change, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, tribal cultural systems, and utilities and service systems.

MSWD prepared and circulated a NOP for the Project. The NOP public review period through the State Clearinghouse began on February 15, 2019 and ended on March 18, 2019. Respondents were requested to send their input as to the scope and content of environmental information and issues that should be addressed in the WVWRP no later than 30 days after receipt of the NOP. The NOP was distributed to interested agencies, the State Clearinghouse (SCH#2019029091), and a list of interested parties compiled by the MSWD. MSWD held a Scoping Meeting on March 6, 2018 at 5:30 p.m. at the MSWD Main Office located at 166575 2nd St, Desert Hot Springs, CA 92240 (provided as Subchapter 8.2 of this DEIR). The date and location of the scoping meeting was announced in the NOP, and although not required, a legal advertisement announcing the scoping meeting was published in a newspaper of general circulation prior to the scoping meeting. A few written responses were submitted in response to the NOP. No comments were received at the scoping meeting. Comments are summarized below, and a brief response to each issue organized by environmental topic is provided following the summary of comment letters. A copy of each letter is provided in Subchapter 8.3. The location where the issues raised in the comments are addressed is described in the following text.

Comment Letter #1 from Office of Planning and Research (dated 2/15/19) states:

- Acknowledgment letter detailing NOP distribution to State agencies

Comment Letter #2 from South Coast Air Quality Management District (SCAQMD) (dated 3/5/19) states:

- Send DEIR and Air Quality/GHG technical appendices, along with CalEEMod files, directly to SCAQMD at address provided, submit for review
- Use SCAQMD CEQA Handbook and CalEEMod for forecast
- Use SCAQMD regional and localized significance thresholds
- Identify potential adverse AQ/GHG impacts from project construction and operations (all phases of the proposed project)

- If necessary, perform mobile source health risk assessment, including toxic air contaminant impacts
- Assess compatibility of land uses with respect to air quality (such as placing sensitive receptors near air pollution sources, or vice versa)
- Identify mitigation measures, and identify any impacts that would result from mitigation measures
- Include an Alternative Analysis
- Assess whether the project requires a permit from SCAQMD using the link provided in the Comment Letter
- Access to SCAQMD rules and relevant air quality reports are available at the phone number and link provided in the Comment Letter

Comment Letter #3 from the Native American Heritage Commission (NAHC) (dated 3/6/19):

- The lead agency must prepare an EIR if there is a potential for a significant effect on the environment, and as such, the lead agency must determine whether there are historical resources within the project footprint
- The lead agency must consult with all Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project; the Comment Letter details the AB 52 consultation process.
- The Comment Letter details the provisions of SB 18 and how a lead agency would comply with SB 18
- The Comment Letter details NAHC recommendations for cultural resource assessments including contacting the appropriate regional archaeological information center for record search, conducting an archaeological inventory survey if required, and submit report per requirements, contacting the Native American Heritage Commission for a sacred lands file check, as well as suggestions for mitigation to prevent impacts to subsurface resources

Comment Letter #4 from Colorado River Basin Regional Water Quality Control Board (RWQCB) (dated 3/13/19) states:

- The WVWRF will be required to obtain Waste Discharge Requirements (WDRs) from the Regional Water Board. The EIR should include provisions for identifying and complying with the WDR and monitoring and reporting program (MRP)
- The Regional Water Board reviewed a separate report (the Groundwater Modeling report provided as Appendix 7b). The Regional Water Board indicates that they found the methods in this report to be reasonable, and concur with the recommendations that the growth of the groundwater mound beneath the recharge basins be monitored to provide early warning of impending impacts to Well 33
- The EIR should address how the Project will affect TDS concentrations in the basin as a whole and the vicinity of the WVWRF in particular. Mitigation should be included to preserve the high quality of the groundwater downgradient of the WVWRF in conformance with the State Water Board.

Comment Letter #5 from County of Riverside Transportation and Land Management Agency (dated 3/14/19) states:

- The Comment Letter requests that if the project encroaches upon or utilized County right-of-way, the County Transportation Department should obtain an encroachment permit, and may be required to prepare a traffic control plan

A brief response to each issue raised is provided below organized by environmental topic.

Aesthetics

No comments specific to this topic were received.

Agriculture

No comments specific to this topic were received.

Air Quality

SCAQMD provided guidance on the acceptable methodology for analyzing the air quality impacts of the proposed Project and detailed the required information that should be included in the DEIR and provided for the Agency review (Letter #2).

Response: The Air Quality and Greenhouse Gas methodologies in this DEIR conform to the expectations of SCAQMD. All of the information and analysis required by SCAQMD is included in Subchapter 4.4 Air Quality, and Subchapter 4.8 Greenhouse Gas.

Biological Resources

No comments specific to this topic were received.

Cultural Resources

Native American Heritage Commission (NAHC) provided guidance on the information required to accurately assess impacts to cultural resources and tribal cultural resources and provided suggestions for mitigation (Letter #3).

Response: The impacts to cultural resources have been assessed in the Cultural Resources Subchapter of this DEIR (Subchapter 4.6) and Cultural Resources Report included as Appendix 4, Volume 2, and has been assessed in the context of applicable records search and site review and investigation. Mitigation is identified where applicable.

Geology and Soils

No comments specific to this topic were received.

Greenhouse Gases (GHG)

SCAQMD provided mitigation measures and resources to draft mitigation measures to address GHG impacts of the proposed Project and detailed the required information that should be included in the DEIR and provided for the Agency review (Letter #2).

Response: The Greenhouse Gas mitigation measures conform to the expectations of SCAQMD. All of the information and analysis required by SCAQMD is included in Subchapter 4.8 Greenhouse Gases.

Hazards and Hazardous Materials

No comments specific to this topic were received.

Hydrology and Water Quality

The RWQCB provided guidance on the information required to accurately assess the impacts to the groundwater underlying the proposed WVWRP though requesting specific content to be analyzed and included in the EIR (Letter #5).

Response: The mitigation measures and content requested by the RWQCB conform to the expectations of the RWQCB. All of the information and analysis required by the RWQCB is included in Subchapter 4.10, Hydrology and within the two appendices provided in Volume 2 of the DEIR (Appendix 7a [Antidegradation Analysis Report] and 7b [Groundwater Modeling Report]).

Land Use and Planning

No comments specific to this topic were received.

Mineral Resources

No comments specific to this topic were received.

Noise

No comments specific to this topic were received.

Population and Housing

No comments specific to this topic were received.

Public Services

No comments specific to this topic were received.

Recreation

No comments specific to this topic were received.

Transportation and Traffic

The County of Riverside has comments regarding the Project's use or encroachment upon County road rights-of-way (Letter #4).

Response: The impact of the proposed Project on transportation facilities is assessed in the Subchapter 4.17 of this DEIR. The project includes mitigation to ensure that the project will prepare a construction traffic management plan. The project will obtain encroachment permits where applicable.

Utilities and Service Systems

No comments specific to this topic were received.

A copy of the NOP and NOP Distribution list are provided in Subchapter 8.1 of this Program DEIR. A copy of these comment letters is also provided in Subchapter 8.3 of this Program DEIR.

The MSWD WWRP DEIR was prepared in order to address all of the issues identified in the NOP and to provide information intended for use by MSWD, interested and responsible agencies and parties, and the general public in evaluating the potential environmental effects of implementing the proposed Project.

CEQA requires that MSWD consider the environmental information in the Project record, including this Program DEIR, prior to making a decision on the proposed Project. MSWD must consider and decide to approve or reject the WWRP as proposed and described in Chapter 3,

Project Description of this Program DEIR. MSWD also has the authority to modify the Project based on input provided during the public review process.

Because MSWD determined that it would conduct a Program DEIR, issues raised in the comment letters did not alter the scope of the document to include any issue areas that were not already intended to be included. This Program DEIR was prepared in order to address the all of the issue areas identified in Appendix G of the CEQA Guidelines; this provides an informational document intended for use by MSWD, interested and responsible agencies and parties, and the general public in evaluating the potential environmental effects of implementing the Project.

CEQA requires that MSWD, the CEQA Lead Agency, consider the environmental information in the Project record, including this Program DEIR, prior to making a decision on the proposed Project. The decision that will be considered by MSWD is whether to approve the Project for implementation, or to reject the proposed Project.

MSWD will serve as the CEQA Lead Agency pursuant to the CEQA Guidelines Section 15051(b)(1). The MSWD WVWRP DEIR was prepared by Tom Dodson & Associates (TDA). TDA was retained to assist MSWD to perform the independent review of the Project required by CEQA before the MSWD WVWRP DEIR is released. MSWD has reviewed the content of the MSWD WVWRP DEIR and concurs in the conclusions and findings contained herein.

2.3 SCOPE AND CONTENT OF THIS EIR

As stated previously, the MSWD WVWRP DEIR that evaluates the environmental effects of the proposed Project based on Appendix G of the CEQA Guidelines: aesthetics, agricultural and timberland resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gases/climate change, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, tribal cultural systems, and utilities and service systems.

In addition to evaluating the environmental issues listed above, the MSWD WVWRP DEIR contains all of the sections mandated by the CEQA and CEQA Guidelines. Table 2.3-1 provides a listing of the contents required in an EIR along with a reference to the chapter and page number where these issues can be reviewed in the document. This EIR is contained in two volumes. Volume 1 contains the CEQA mandated sections and some pertinent appendices. Volume 2 contains the technical appendices.

**Table 2.3-1
REQUIRED EIR CONTENTS**

| Required Section (CEQA) | Section in EIR | Page Number |
|---|-----------------------|-----------------------|
| Table of Contents (Section 15122) | same | li |
| Summary (Section 15123) | Chapter 1 | 1.1 |
| Project Description (Section 15124) | Chapter 3 | 3.1 |
| Environmental Setting (Section 15125) | Chapter 4 | Beginning 4.1 |
| Significant Environmental Effects of Proposed Project (Section 15126a); Environmental Impacts | Chapter 4 | Beginning 4.1 |
| Unavoidable Significant Environmental Effects (Section 15126b) | Chapter 4 | Beginning 4.1 |
| Mitigation Measures (Section 15126c) | Chapter 4 | Beginning 4.1 |
| Cumulative Impacts (Section 15130) | Chapter 4 | Beginning 4.1 and 6.2 |
| Alternatives to the Proposed Action (Section 15126d) | Chapter 5 | Beginning 5.1 |
| Growth-Inducing Impacts (Section 15126g) | Chapter 6 | 6.1 |
| Irreversible Environmental Changes (Section 15126f) | Chapter 6 | 6.1 |
| Effects Found Not to be Significant (Section 15128) | Chapter 2 & 8 | 2.1 |
| Organizations and Persons Consulted (Section 15129) | Chapter 7 | 7.1 |
| Appendices | Chapter 8 | 8.1 |

2.4 DEIR FORMAT AND ORGANIZATION

The MSWD WVWRP DEIR contains eight chapters in Volume 1 and a set of technical appendices in Volume 2, which, when considered as a whole, provide the reviewer with an evaluation of the potential significant adverse environmental impacts from implementing the proposed Project. The following paragraphs provide a summary of the content of each chapter of the MSWD WVWRP DEIR.

Chapter 1 contains the Executive Summary for the MSWD WVWRP DEIR. This includes an overview of the proposed Project and a tabular summary of the potential adverse impacts and mitigation measures.

Chapter 2 provides the reviewer with an Introduction to the document. This chapter of the document describes the background of the proposed Project, its purpose, and its organization. The CEQA process to date is summarized and the scope of the MSWD WVWRP DEIR is identified.

Chapter 3 contains the Project Description used to forecast environmental impacts. This chapter describes for the reviewer how the existing environment will be altered by the proposed Project. Chapter 3 sets the stage for conducting the environmental impact forecasts contained in the succeeding several chapters.

Chapter 4 presents the environmental impact forecasts for the issues considered in the MSWD WVWRP DEIR. For each of the environmental issues identified in Section 2.3, the following impact evaluation is provided for the reviewer: the potential impacts forecast to occur if the Project is implemented; proposed mitigation measures; unavoidable adverse impacts; and cumulative impacts.

Chapter 5 contains the evaluation of alternatives to the proposed Project. Included in this section is an analysis of the No Project Alternative and other Project alternatives.

Chapter 6 presents the topical issues that are required in an EIR. These include any significant irreversible environmental changes and growth inducing effects of the proposed Project.

Chapter 7 describes the resources used in preparing MSWD WVWRP DEIR. This includes persons and organizations contacted; list of preparers; and bibliography.

Chapter 8 contains those materials referenced as essential appendices to the MSWD WVWRP DEIR, such as the NOP. Technical Appendices are provided in Volume 2 of the MSWD WVWRP DEIR, under separate cover. All Appendix material is referenced at appropriate locations in the text of the MSWD WVWRP DEIR.

2.5 AVAILABILITY OF THE MISSION SPRINGS WATER DISTRICT WEST VALLEY RECLAMATION PROGRAM DEIR

The MSWD WVWRP DEIR has been distributed directly to all public agencies and interested persons identified in the NOP mailing list (see Subchapter 8.1), the State Clearinghouse, as well as any other requesting agencies or individuals. All reviewers will be provided 45 days to review the MSWD WVWRP DEIR and submit comments to the MSWD for consideration and response. The MSWD WVWRP DEIR is also available for public review at the MSWD's website at <https://www.mswd.org/plans.aspx> and at the following locations during the 45-day review period:

Mission Springs Water District
66575 2nd Street
Desert Hot Springs, CA 92240

2.6 REVIEW PROCESS

After receiving comments on the MSWD WVWRP DEIR, MSWD will prepare a Final EIR for certification prior to making a decision on the Project. Information concerning the EIR public review schedule and MSWD meetings for this Project can be obtained by contacting Mr. Danny Friend, Director of Engineering and Operations, MSWD. Questions and comments submitted by mail shall be addressed to:

Mission Springs Water District
66575 2nd Street
Desert Hot Springs, CA 92240
Attn: Danny Friend, Director of Engineering and Operations, MSWD
Phone: (760) 329-6448
Email: dfriend@mswd.org

Certain components of the Project may be subject to review and approval by other agencies. This includes: Any permits required from the RWQCB; and filing of a Notice of Intent with the State for a Construction Activity General Permit.

CHAPTER 3 – PROJECT DESCRIPTION

All Chapter 3 figures are located at the end of this chapter, not immediately following their reference in the text.

3.1 INTRODUCTION

Mission Springs Water District (MSWD or District), as the Lead Agency pursuant to California Environmental Quality Act (CEQA), is proposing to implement a West Valley Water Reclamation Program (WVWRP or Program) that includes constructing municipal wastewater collection and treatment systems that will facilitate the elimination of individual septic systems that overlie the Mission Creek aquifers. As detailed in this project description, many of the activities that make up the WVWRP are in the planning and design phase. This Program Environmental Impact Report (PEIR) analysis focuses on both the plan level and project level implementation, including site-specific construction and operation details of individual program elements, where individual elements are known. As such, the level of information and analysis provided for each individual action is commensurate with this PEIR approach.

3.2 PROJECT LOCATION

The MSWD service area is located in southern California within the northwestern portion of the Coachella Valley. The service area encompasses approximately 135 square miles with focus on the City of Desert Hot Springs and surrounding unincorporated areas. The service area also encompasses the villages of Palm Springs Crest and West Palm Springs located in the southwest corner of the District. Figure 3-1 shows the District's current service area boundaries. The service area is bordered to the north and northeast by the Little San Bernardino Mountains; on the east/southeast by the Seven Palms Valley and Edom Hills; on the south generally by Interstate 10, except in the southwest; and on the west by the San Bernardino Mountain foothills, west of State Route 62. All future proposed facilities will be located inside the MSWD service area boundary. Therefore, for purposes of this PEIR, the "project area" includes the MSWD service area as depicted in Figure 3-1.

3.3 PROJECT PURPOSE AND OBJECTIVES

The primary purpose and objectives of the proposed project are:

- The primary purpose of the proposed WVWRP is to expand the District's Groundwater Quality Protection Program (GQPP) to protect and preserve the quality of its most valuable natural resource, groundwater.
- A specific objective of the WVWRP is to improve groundwater quality by removing individual septic systems and treating wastewater for constituents of concern.
- Another specific objective is to increase the capacity at the Horton Wastewater Treatment Plant (HWWTP) by diverting a portion of the existing sewered areas to the proposed West Valley Water Reclamation Facility (WVWRF).
- Another specific objective is to design the WVWRP facilities in a way that will accommodate future expansions and upgrades to produce effluent to meet recycled water standards, when proposed by MSWD. Doing so will maximize future water recourses within the MSWD service area by providing a source of water that can be

directly used to offset potable water demand for landscape irrigation within the District's service area.

3.4 PROJECT CHARACTERISTICS

MSWD envisions the facilities described in this Section as a key element in the long-term management of the region's groundwater resources, the primary water supply to District customers. The WVWRP is anticipated to be implemented over an extended period of between 3 to 10 years. The WVWRP has three components: construction of a wastewater treatment plant (the WVWRF), construction of a conveyance system connecting existing sewer areas to the WVWRF, and constructing a collection system for the GQPP Area M2 (to be served by the WVWRF).

As funding becomes available, the District's WVWRF will be installed and begin operation of Phase 1 with design flow of 1.5 million gallons per day (MGD). Initial flows are projected to be 0.20 MGD. By the end of Year 1, flows are projected to be 0.29 MGD. Flows are projected to gradually increase to 1.0 MGD by Year 7 and 1.2 MGD by Year 9. The WVWRF will be constructed in phases with ultimate "build-out" capacity of up to 20 MGD. The WVWRF is being planned, designed, and implemented to permit MSWD to allow future expansion with minimal demolition and removal of any Phase 1 facilities. Expansion beyond the proposed 1.5 MGD wastewater treatment plant identified as Phase 1 is beyond the intent of this document.

Figure 3-2 shows the location of the various facilities envisioned under the proposed project.

MSWD is committed to water recycling as a future wastewater management option. MSWD is proposing the new WVWRF as a first step. Initially, the level of treatment will be secondary with denitrification discharging to onsite infiltration basins. Provisions will be made to accommodate upgrades to advanced secondary and tertiary treatment as future steps toward producing recycle water depending on growth, demand, and available funding.

This environmental document evaluates a mix of uses that are designed to culminate with an overall groundwater protection program that concurrently will augment the District's existing groundwater supply. The overall project would remove from service individual septic systems that overlie the Mission Creek groundwater sub-basin, collect and treat the wastewater, and ultimately replenish the Garnet Hill sub-basin and potentially the Mission Creek sub-basin in the future. The overall GQPP is designed to protect groundwater quality from degradation by discharges from septic leach-fields. The GQPP would ultimately remove more than 8,100 septic tanks for connection to MSWD's sewer system. As the GQPP implementation progresses, it will create the need for additional sewage treatment capacity within the MSWD service area. A portion of this added sewage flow would be diverted to the planned MSWD WVWRF.

The information regarding site specific facilities is abstracted and summarized from the Preliminary Design Report: Mission Springs Water District West Valley Water Reclamation Facility compiled by AECOM dated December 7, 2018 (herein referred to as PDR or AECOM's 2018 Report), and the West Valley Sewer Conveyance System Technical Memorandum compiled by TKE Engineering in April 9, 2019 (herein referred to as TKE's 2019 TM). For reviewers interested in more engineering detail, the reviewer is referred to the Technical Appendices where copies of these documents are provided (Appendix 1a and 1b, Volume 2 of this DEIR). In summary, the following specific facilities will be evaluated in this document.

3.4.1 West Valley Water Reclamation Facility

The District is proposing to consolidate its wastewater treatment operations at a regional site presently owned by the District. This 60-acre site is located at the northwest corner of the intersection of Little Morongo Road and 20th Avenue. A preliminary layout of the WVWRF is shown on Figure 3-2. The District's Well 33 site presently occupies the northeast corner of this site, adjacent to Little Morongo Road. The WVWRF construction would be designed to remove conventional pollutants 5-day, biochemical oxygen demand (BOD₅), total suspended solids (TSS), and total nitrogen (TN) from the wastewater for disposal to onsite infiltration basins. Provisions will be made in the facility's initial design to accommodate future upgrades to tertiary treatment to allow expanded use of recycled water. The individual facilities that comprise the WVWRF are listed on Figure 3-3 in the form of a process flow diagram and short project descriptions of each facility are provided in the following text. Each facility includes a description for Phase 1 design and Future design. Phase 1 design is for average monthly maximum flow of 1.5 MGD. The following sections describe the recommended facilities, as listed below.

- Influent pump station
- Coarse screening with screenings compactor
- Stacked Tray or Vortex grit removal with grit classifiers
- Sequencing batch reactors (SBR)
- Effluent disposal to infiltration basins
- Aerated sludge storage with decanter for gravity thickening
- 3-Belt Belt Filter Press (BFP) for biosolids dewatering
- Sludge Drying Beds as reliable backup
- Contract disposal of biosolids
- Odor control
- Emergency stand-by power generator

Rotary Drum Thickeners (RDTs) were recommended in the PDR; however, these units were eliminated from the Phase 1 improvements through a follow-on Value Engineering process which recommended deferring these units until flows reach or exceed the Phase 1 design conditions.

Two BFP units, one active and one spare, were recommended in the PDR; however, the spare BFP unit was replaced with sludge drying beds through a follow-on Value Engineering process which recommended deferring the second BFP unit until flows reach or exceed the Phase 1 design conditions.

The following tables summarize the design values for Phase 1 of the WVWRF:

**Table 3-1
Summary of Influent Design Values**

| Parameter | Units | Value |
|---------------------------|-------|-------|
| Flow, Monthly Maximum ADF | MGD | 1.5 |
| BOD ₅ | mg/L | 330 |
| TSS | mg/L | 370 |
| TKN | mg/L | 60 |
| Ammonia Nitrogen | mg/L | 43 |

**Table 3-2
Summary of Effluent Design Values**

| Parameter | Units | Value |
|--------------------------------|----------------|--------------------------------------|
| Flow, Monthly Maximum ADF | MGD | 1.5 |
| BOD ₅ | mg/L | 30 |
| TSS | mg/L | 30 |
| Total Nitrogen, Annual Average | mg/L | 10 |
| pH | Standard Units | 6.0- 9.0 |
| TDS | mg/L | 400 mg/L above domestic source water |

Influent Pump Station

For influent pumping, a submersible pumping system has been selected as the preferred alternative.

The Phase 1 Influent Pump Station (IPS) would be designed to pump a peak hour flow of 2,600 gallons per minute (gpm) or 3.75 MGD. Three new pumps would be installed for the initial Phase 1 flows. Two pumps would be duty pumps, and one pump would be on dedicated standby. The wet well would be sized to accommodate a future plant expansion to 3.0 MGD average max month flow. Space will be allocated in the wet well for future pumps that can be added sequentially as influent flows increase.

The proposed pumps for the Phase 1 IPS can only be conservatively ramped down to 70% of full speed to achieve a minimum flowrate of approximately 800 gpm per pump. The initial influent flow for the IPS is expected to be approximately 0.2 MGD (170 gpm). Therefore, the District will install two smaller temporary pumps in a duty and standby configuration to handle the initial flows to the IPS. The smaller temporary pumps can be removed and replaced with the larger Phase 1 pumps described above once flows into the IPS begin to increase. Further details regarding the specifics of the IPS facilities are outlined in Appendix 1a (AECOM's 2018 Report).

Preliminary Treatment

For preliminary treatment, coarse screens, fine screens, and stacked tray or vortex grit removal technologies have been selected as the preferred alternatives.

The Phase 1 for screening would involve installation of the following equipment. Details of equipment are provided below.

- Multi-rake screen with 1/4-inch spacing (coarse screen)
- A length of open channel will be reserved downstream of the 1/4-inch screens to accommodate installation of rotary drum screens with 1 to 2 mm perforations (fine screens) in the event the SBR plant is converted to membrane bioreactor (MBR) in the future

Phase 1 for grit removal would involve installation of two stacked tray or vortex grit removal systems each designed to handle peak wet weather flow of 3.75 MGD, providing full redundancy in the system. Flow is directed through the systems continuously, and grit is pumped intermittently from the bottom of the systems to the grit dewatering unit. The stacked tray unit is a modular, multiple tray concentrator that optimizes the capture of grit and settleable solids by maximizing surface area, minimizing settling distances, and minimizing hydraulic inefficiencies. The vortex grit chamber has a propeller blade that runs continuously to assist vortex movement of wastewater. Recessed impeller vortex grit pumps were chosen for the design. Further details regarding the specifics of the Preliminary Treatment facilities are outlined in Appendix 1a (AECOM's 2018 Report).

Screening:

- Multi-rake screen with 1/4-inch spaced multi-rake (1 duty, 1 standby).

Grit removal:

- Stacked Tray or Vortex grit removal units (1 duty, 1 standby).
- Recessed impeller grit pumps (1 duty, 1 standby).
- Grit dewatering units (1 duty, 1 standby).

Biological Treatment System

For the biological treatment SBR has been selected as the preferred alternative. Provisions will be made in the design for the facility to easily accommodate upgrades to produce recycle water in the future.

Phase 1 will consist of four SBR tanks and associated decant tanks, valves, pumps, piping, blowers, instrument controls, fine-pore diffusers, process monitoring sensors, and mixers. To better handle the turn-down required to treat the initial 0.2 MGD flow, the first SBR basin may be split length-wise into two smaller SBRs with one decant tank. The three other SBR tanks will provide all the necessary backup treatment capacity should something happen that requires a basin to be taken offline.

When the average treatment flow of the WVWRF reaches approximately 0.4 MGD, the split SBRs from the initial phase will be operated in parallel as though they were a single SBR and a second SBR with decant tank will be brought online. The third and fourth SBRs and decant tanks will be brought online when the average treatment flow reaches approximately 0.7 and 1.0 MGD, respectively. The four SBRs can treat up to 1.5 MGD. The SBRs will be equipped with sufficient aeration capacity to meet the full flow aeration requirement of 8,600 lbs per day with one tank out of service to meet Class 1 reliability standards.

Decant from the SBR tanks will flow by gravity through a pipe from the decanter to the associated SBR decant tank. From the decant tanks, effluent will flow by gravity through a pipeline and discharge to the disposal ponds.

Effluent Management

Treatment plant effluent will be disposed by discharging to infiltration basins. For Phase 1, an area of approximately 3.5 acres will be developed for use as infiltration basins.

Three basins are proposed. Two infiltration basins and one redundant basin would be used to dispose of treated effluent. Square basins will be sized based on the assumption of a water depth of one foot in each infiltration basin, and will have a designed infiltration rate of 5 to 9 inches/hour. Infiltration basins will be located in the southern portion of the WVWRF site to allow for sufficient distance from MSWD's Public Water Supply Well 33 to eliminate the infiltration basins' potential influence on groundwater flowing to Well 33 as demonstrated by groundwater modeling (A report titled "Groundwater Model to Evaluate the Potential Impact from the Proposed West Valley Water Reclamation Facility Percolation Basins" prepared by EnviroLogic Resources Inc. dated September 8, 2018, details the groundwater modeling and is provided in Volume 2, Appendix 7b). Each infiltration basin will be 220 feet x 220 feet with a depth of 5 feet that will allow for a water depth of 1 foot and a slope of 1:4. Additional area is needed for equipment access ways around the perimeter of each basin. Further details regarding the specifics of the Effluent Management facilities are outlined in Appendix 1a (AECOM's 2018 Report).

Solids Storage and Thickening System

For solids storage and thickening, aerated sludge storage tanks (ASST) with decanters were selected as the preferred alternative.

Initial operation of the plant (at 0.2 MGD and up to around 1.0 MGD) would involve installation of the following equipment for solids thickening.

- ASSTs
- Process air system
- Decanter system
- Sludge feed pumps
- Polymer dosing system

The polymer dosing system is an option to enhance the decanting process as may be needed. Further details regarding the specifics of the Solids Storage and Thickening System facilities are outlined in Appendix 1a (AECOM's 2018 Report).

Solids Dewatering System

The preferred alternative for solids dewatering is a combined Gravity Belt Thickener (GBT) and BFP.

One combined GBT and BFP will be sufficient for the dewatering needs of the plant up to 1.5 MGD. The sludge drying beds will serve as a reliable, cost-effective backup to the one combined GBT and BFP.

- Combined GBT and BFP (3-belt BFP)
- Sludge drying beds (for emergency backup)
- Sludge feed pump
- Polymer dosing system

Further details regarding the specifics of the Solids Dewatering System facilities are outlined in Appendix 1a (AECOM's 2018 Report).

Solids Stabilization and Disposal

The preferred alternative for Phase 1 solids stabilization and disposal is aerated sludge storage and dewatering. Dewatered solids will be discharged straight into a trailer and trucked offsite for disposal. Rented trailers will be used for solids transport by a contract hauler as needed. No solids stabilization will be undertaken at the plant.

Phase 1: Phase 1 for solids stabilization and disposal would involve installation of the following equipment.

- Discharge conveyor
- Load out conveyor

Further details regarding the specifics of the Solids Stabilization and Disposal facilities are outlined in Appendix 1a (AECOM's 2018 Report).

Odor Control, Emergency Stand-by Power Generator, and Air Dispersion Modeling

Odor control is needed at the IPS, preliminary treatment areas, and solids processing and storage areas to capture and treat the foul air anticipated to be generated from these facilities.

Electrical power for the WWRF will be supplied by Southern California Edison Company. In the event of a power outage, the WWRF will have emergency, stand-by power to allow continued, reliable operation during a power outage. Emergency stand-by power will be supplied from a diesel-powered engine generator with a nominal capacity rating of 2750 kilowatts, 480-volt, 3-phase power.

As part of the design of the odor control and emergency power generator systems. The District has already begun consultations with South Coast Air Quality Management District (SCAQMD) to ensure applicable regulations are satisfied. Preliminary discussions with SCAQMD indicated that for hydrogen sulfide (H₂S) emissions, the design basis for the odor control systems will be acceptable. Additionally, regarding the stand-by generator, detailed modeling of the toxic air emissions from each unit will likely not be required for a facility of this small size.

Phase 1: For Phase 1, odors will be controlled by a system consisting of covers over selected process areas, foul air collection, and activated carbon treatment before exhausting to atmosphere. The predominant wind direction is from the west. The exhaust from the odor control system will be located near the middle interior of the site to allow for air dispersion before reaching the east property boundary.

Site Layout and Access Roadways

The new WVWRF site would have a paved entrance road and parking area. The area surrounding the IPS, headworks, process building, and SBR would also be paved similar to the District's existing HWWTP site. Gravel roads would be provided for access to the effluent spreading basins.

The overall site will be orientated as per the Master Site Plan Conceptual Layout shown in Figure 3-2. The facilities have been designed to be located to take advantage of the natural ground sloping from north to south for efficient hydraulic designs of treatment processes and drainage. Where possible, facilities will be also oriented to provide shelter from predominant strong winds from the west.

The IPS and treatment plant will be placed to the west of Little Morongo Road by approximately 500 feet, and south of the existing domestic water production well (Well 33) by approximately 1,000 feet. The site layout for the plant utilizes common walls for many unit processes and tanks, allowing for a smaller footprint. The plant will take up an area of approximately 1.5 acres. The infiltration basins will be located in the southern portion of the site to provide adequate offset distance from the domestic water production well (Well 33) at the northeast corner of the site, while also allowing some buffer between the basins and the south property line where monitoring wells will be located. The area designated for infiltration basins will take up an area of approximately 7 acres of which approximately half will be developed for use in Phase 1. The primary site access will be from Little Morongo Road.

Further details regarding the specifics of the Site Layout and Access Roadways are outlined in Appendix 1a (AECOM's 2018 Report), and are provided on Figures 3-4 through 3-6.

Stormwater Control

The site grading would be designed to provide gentle site slopes and swales to allow localized stormwater infiltration. Retention basins will be provided in selected locations to drain excess water away from full swales during extreme rainstorms. The excess stormwater would be directed to the spreading basins at the WVWRF site. Site grading will include provisions to divert stormwater run-on through and/or around the site.

Landscaping and Irrigation

Areas that are not covered with asphalt or gravel pavement would be covered with native soils. Fencing and drought tolerant landscaping would be provided in selected locations. Use of irrigation would be minimized.

Electrical Design

Electrical power for the WVWRF is obtained from the Southern California Edison Company system. The new WVWRF is provided with standby power from a diesel fuel powered engine generator with a nominal capacity rating of 2750 kilowatts, 480-volt, 3-phase power. The standby generator is located outside the new electrical room on a concrete pad. Space will be provided in the main switchboard 2500A and for a future MCC with a 600 amp rating.

A standby emergency generator will be provided to allow continued operation during a power outage. The following features (with motor loads) will be supported:

- Pump station, power to essential equipment.
- Exhaust fans.
- Miscellaneous electrical loads.

The fuel tank will be sized for an 8-hour run time during a power outage. The above-grade fuel tank will be double-walled with leak detection alarms. The leak detection alarm will have local and remote annunciation. The remote annunciation will be via the site programmable logic controller (PLC) to Central Control via the supervisory control and data acquisition (SCADA) system.

3.4.2 West Valley Water Reclamation Facility Sewer Conveyance System

The proposed WVWRF Sewer Conveyance System begins near the intersection of Avenida Manzana and Dillon Road, continues west along Dillon Road to Little Morongo Road, then south along Little Morongo Road to the WVWRF. The area served by the WVWRF Sewer Conveyance System is within MSWD's service area and is generally located west of Little Morongo Road and north of Dillon Road, as shown in Figure 3-7, Study Area. The District's wastewater collection service area is divided into several collection zones. Ultimately all flows generated in the WVWRF service area are slated to be conveyed to the WVWRF. Initially, it is understood that the conveyance system will convey flows from the existing GQPP Areas L and M1 at the Dos Palmas Lift Station (located northwest of the intersection of Avenida Manzana and Dillon Road) along with the near term flows of the MSWD GQPP Area M2 and other MSWD identified near term developments.

Initial Flows to WVWRF

The initial flows that will need to be conveyed to the WVWRF will come from the identified existing and near term sewered areas, also shown in Figure 3-7. The existing GQPP sewered Areas L and Area M1 currently flow to the Dos Palmas Lift Station where they are conveyed to the HWWTP. These flows will be allocated to the WVWRF. Flows from GQPP Area M2, DHS Coalition, DHS 109, and the Palm Springs Business Park (also referred to as "Coachillin") will also be allocated to the WVWRF. Table 3-3, Existing and Near Term Flows, shown below establishes average daily flow rates of these initial flow areas in accordance with MSWD's design criteria.

**Table 3-3
EXISTING AND NEAR TERM FLOWS**

| Development Name | Area (acre) | Developed Density | Peak Factor | Average Daily Flow (MGD) |
|---|--------------------|--------------------------|--------------------|---------------------------------|
| Existing Measured Wastewater Flows | | | | |
| Area L & M1 | - | - | 2.50 | 0.195 |
| Near Term Flows | | | | |
| Area M2 | - | - | 2.50 | 0.081 |
| DHS Coalition | 122 | 30% | 1.33 | 0.073 |
| DHS 109 | 122 | 15% | 1.33 | 0.037 |
| P.S. Business Park | 142 | 37% | 1.33 | 0.105 |
| Total | | | | 0.49 |

The District is considering two alternative for conveyance to the WWRF: Alternative 3 and Alternative 4 outlined in TKE's 2019 TM, provided in Appendix 1b. These alternatives are discussed in detail below.

Alternative 3: Dillon Force Main and Little Morongo Trunk Sewer

Alternative 3: Dillon Force Main and Little Morongo Trunk Sewer, shown in Figure 3-8, proposes to convey wastewater flows within the public right-of-way through a force main on Dillon Road from the Dos Palmas Lift Station to Little Morongo Road and then through a gravity sewer line on Little Morongo Road from Dillon Road to the WWRF. Flows would be pumped through the force main by the Dos Palmas Lift Station after modifications are made. The lift station modifications are discussed below under the "Lift Station Modifications" section.

Conveyance Reaches

Alternative 3 will have three reaches within its alignment as shown in Figure 3-8. The first reach (R1) will run along Dillon Road from the Dos Palmas Lift Station to the intersection of Dillon Road and Little Morongo Drive. The second reach (R2) will run from the end of R1 along Little Morongo Road to 19th Ave. The third reach (R3) will run from the end of R2 to the headworks at the WWRF. The types and lengths of each Alternative 3 reach are show below in Table 3-4, Alternative 3 Reaches.

**Table 3-4
ALTERNATIVE 3 REACHES**

| Reach | Type | Length (ft) |
|---------------|---------------|---------------|
| R1 | Force Main | 10,192 |
| R2 | Gravity Sewer | 5,175 |
| R3 | Gravity Sewer | 1,087 |
| Total: | | 16,454 |

Initial Flows

The initial wastewater flows are generated from the existing and near term developments. These initial flows are allocated to their appropriate reaches based upon existing MSWD sewer facilities and are shown below in Table 3-5, Alternative 3 Initial Flows. These initial flows will be taken into account to properly size the gravity sewer main while maintaining MSWD's minimum 2 feet per second (fps) cleaning velocity.

**Table 3-5
ALTERNATIVE 3 INITIAL FLOWS**

| Reach | Area | Initial Flows (MGD) ADWF |
|---------------|----------------------------|-----------------------------|
| R1 | Area M2 | 0.081 |
| | Area L & M1 | 0.195 |
| | DHS Coalition | 0.073 |
| | DHS 109 | 0.037 |
| | R1 TOTAL: | 0.39 |
| R2 | - | - |
| | R2 TOTAL: | 0.00 |
| R3 | Palm Springs Business Park | 0.105 |
| | R3 TOTAL: | 0.11 |
| Total: | | 0.49 |

Combined Flows

The flows generated from the area tributary to each reach build upon themselves as they progress towards the WVWRF. Table 3-6, Alternative 3 Combined Average Dry Weather Flows (ADWF) shows the combined flows in million gallons per day, gallons per minute, and cubic feet per second. These flows will be used to analyze the existing Dos Palmas Lift Station volumes and capacity along with sizing of the force main.

**Table 3-6
ALTERNATIVE 3 COMBINED AVERAGE DRY WEATHER (ADWF) FLOWS**

| Reach | Combined Initial ADWF Flows | | | Combined Ultimate ADWF Flows | | |
|-----------|-----------------------------|-----|------|------------------------------|--------|-------|
| | MGD | gpm | cfs | MGD | gpm | cfs |
| R1 | 0.39 | 268 | 0.6 | 1.98 | 1,375 | 3.06 |
| R2 | 0.39 | 268 | 0.6 | 10.35 | 7,188 | 16.01 |
| R3 | 0.49 | 341 | 0.76 | 14.78 | 10,264 | 22.87 |

Preliminary Design

Pipe sizing and minimum slope criteria are developed for each reach considering initial and ultimate peak wet weather flows. Ultimate combined peak wet weather flows are used to calculate sewer main size while meeting MSWD's hydraulic depth ratio criteria. Initial combined flows and pump station capacity are used to calculate gravity sewer main slope while maintaining MSWD's minimum 2 fps cleaning velocity as shown below in Table 3-7, Alternative 3 Preliminary Design. Force main sizing is also included in Table 3-7. Preliminary profiling along the R2 and R3 reaches showed that the existing ground slope is approximately 1.86%. Therefore, the pipe slopes for R2 and R3 required additional investigation, resulting in the data contained in Table 3-7 below.

**Table 3-7
ALTERNATIVE 3 PRELIMINARY DESIGN WITH PRELIMINARY PROFILE UPDATES**

| Alternative 3: Dillon Force Main and Little Morongo Trunk Sewer | | | | | | |
|---|--------------------|---------------|-------------------------|------------------------|----------------|----------------------|
| Reach | Pipe Diameter (in) | Slope (ft/ft) | Manning's Roughness (n) | Max. Depth Ratio (d/D) | Velocity (fps) | Sewer Capacity (cfs) |
| Alt. 3, R1, Initial Flow (2.67 cfs) | Force Main | | | | | |
| Alt. 3, R1, Ultimate Flow (7.20 cfs) | Force Main | | | | | |
| Alt. 3, R2, Initial Flow (2.67 cfs) | 36 | 0.0199 | 0.013 | 0.11 | 5.67 | 2.40 |
| Alt. 3, R2, Ultimate Flow (24.02 cfs) | 36 | 0.0199 | 0.013 | 0.35 | 11.22 | 24.74 |
| Alt. 3, R3, Initial Flow (2.97 cfs) | 39 | 0.0137 | 0.013 | 0.11 | 4.96 | 2.46 |
| Alt. 3, R3, Ultimate Flow (32.02 cfs) | 39 | 0.0137 | 0.013 | 0.4 | 10.5 | 32.57 |

R1 is a force main and will follow existing ground. R2 and R3's gravity sewer lines will be sloping in the same direction as the existing topography. The calculated minimum slopes shown above are verified against the existing ground via preliminary profiling. Further details regarding the specifics of the Conveyance facilities are outlined in Appendix 1b (TKE's 2019 Report).

Lift Station Modification

Currently, the Dos Palmas Lift Station conveys flows tributary to R1 to the HWWTP. The Dos Palmas Lift Station consists of an 8' diameter wet well housing two 60 HP submersible sewage pumps each capable of 700 gpm at 133' Total Dynamic Head (TDH). It was confirmed that the Dos Palmas Lift Station has a design capacity of 1 MGD (700 gpm) of peak wet weather flow, and 0.35 MGD (240gpm) of average daily flow, maintaining one pump as redundant backup capacity.

Alternative No. 3 proposes to utilize the Dos Palmas Lift Station by conveying initial flows through the R1 force main as described above. This requires investigation into the capacity of the existing Dos Palmas Lift Station and the requirements of the R1 force main.

The sewer pump station and force main will be sized based on average dry weather and ultimate peak wet weather wastewater flows. Due to the wide range of flow between initial dry weather and ultimate peak wet weather flows, various force main sizes were considered. The force main sizes have a direct impact on the pump station electrical requirements. For example, larger force mains have much lower power requirements than smaller force mains. The preliminary analysis indicates a 14" diameter ductile iron pipe would be required in order to lower the TDH of the proposed system in Alternative No. 3.

However, the analysis also indicates the following modification or replacement would be required at the existing Dos Palmas Lift Station:

- a) **Initial Flows:** Pump replacement would be required in order to meet the new interim system conditions.
- b) **Ultimate flows:** It is anticipated, the capacity of the existing wet well will not be adequate to handle the ultimate wastewater flows. Consequently, the new wet well or new pump station would be required to meet these conditions. Currently there is a duplex pumping unit installed in the existing wet well. However, for the ultimate wastewater flow, there will be at least three pumps installed in the future wet well.

The new design parameter of the proposed pumps for interim conditions shall be around 1,200 gpm (1.73 MGD) of peak wastewater flows (PWWF), which would translate to 440 gpm (0.63 MGD) of average daily wastewater flows (ADWF).

In order to adhere to MSWD's velocity requirement, the R1 force main is sized at 14" to accommodate ultimate flows. Table 3-8 shows the velocity, head loss per 1,000 feet values, and braking horse power for R1 at the existing and ultimate flow rates.

**Table 3-8
FORCE MAIN SIZING**

| | GPM | Pipe Diameter (in) | C Factor | Pipe Length (ft) | Head Loss (ft) | Velocity (fps) | Head Loss per 1,000 ft | BHP (hp) |
|-----------------|-------|--------------------|----------|------------------|----------------|----------------|------------------------|----------|
| Initial | 1,200 | 14 | 120 | 10,192 | 17.00 | 2.32 | 1.62 | 50 |
| Ultimate | 2,400 | 14 | 120 | 10,192 | 60.00 | 4.63 | 5.85 | 160 |

Further details regarding the specifics of the Conveyance facilities are outlined in Appendix 1b (TKE's 2019 Report).

Alternative 4: Dillon Force Main/Sewer and Little Morongo Trunk Sewer

Alternative 4: Dillon Force Main/Sewer and Little Morongo Trunk Sewer, shown on Figure 3-8, proposes to convey wastewater flows to the WVWRF within the public right-of-way through a force main and gravity sewer lines. The intention of selecting this alternative is to avoid unnecessarily pumping flows generated from SB-28 by allocating the flows to the end of the proposed force main rather than allowing them to be routed to the inlet of the Dos Palmas Lift Station as proposed in Alternative 3 (discussed further in Chapter 5 of this DEIR and outlined in TKE's 2019 TM provided as Appendix 1b). Flows would be pumped through a force main by the Dos Palmas Lift Station after modifications are made. The lift station modifications are discussed below under the "Lift Station Modifications" section.

Conveyance Reaches

Alternative 4 will have four reaches within its alignment as shown on Figure 3-8. The first reach (R1) will run along Dillon Road from the Dos Palmas Lift Station to the intersection of Atlantic Ave. The second reach (R2) will run from the end of R1 to the intersection of Dillon Road and Little Morongo Drive. The third reach (R3) will run from the end of R2 along Little Morongo Road to 19th Ave. The fourth reach (R4) will run from the end of R3 to the headworks at the WVWRF. The types and lengths of each Alternative 4 reach are shown below in Table 3-9, Alternative 4 Reaches.

**Table 3-9
ALTERNATIVE 4 REACHES**

| Reach | Type | Length (ft) |
|---------------|---------------|---------------|
| R1 | Force Main | 7,531 |
| R2 | Gravity Sewer | 2,661 |
| R3 | Gravity Sewer | 5,175 |
| R4 | Gravity Sewer | 1,087 |
| Total: | | 16,454 |

Initial Flows

The initial wastewater flows are generated from the existing and near term developments. These initial flows are allocated to their appropriate reaches based upon existing MSWD sewer facilities and are shown below in Table 3-10, Alternative 4 Initial Flows. These initial flows will be considered to properly size the gravity sewer system and force main while maintaining MSWD's minimum 2 fps cleaning velocity.

**Table 3-10
ALTERNATIVE 4 INITIAL FLOWS**

| Reach | Area | Initial Flows (MGD) |
|-----------|----------------------------|---------------------|
| R1 | Area M2 | 0.081 |
| | Area L & M1 | 0.195 |
| | R1 TOTAL: | 0.28 |
| R2 | DHS Coalition | 0.073 |
| | DHS 109 | 0.037 |
| | R1 TOTAL: | 0.11 |
| R3 | - | - |
| | R1 TOTAL: | 0.00 |
| R4 | Palm Springs Business Park | 0.105 |
| | R1 TOTAL: | 0.11 |
| | Total: | 0.49 |

Combined Flows

The flows generated from the area tributary to each reach build upon themselves as they progress towards the WVWRF. Table 3-11, Alternative 4 Combined Average Dry Weather Flows shows the combined flows in MGD, gpm, and cfs. These flows will be used to analyze the existing Dos Palmas Lift Station volumes and capacity along with sizing of the force main.

**Table 3-11
ALTERNATIVE 4 COMBINED AVERAGE DRY WEATHER FLOWS**

| Reach | Combined Initial ADWF Flows | | | Combined Ultimate ADWF Flows | | |
|-----------|-----------------------------|-----|------|------------------------------|--------|-------|
| | MGD | gpm | cfs | MGD | gpm | cfs |
| R1 | 0.28 | 192 | 0.43 | 1.52 | 1,056 | 2.35 |
| R2 | 0.39 | 268 | 1.60 | 1.98 | 1,375 | 3.06 |
| R3 | 0.39 | 268 | 1.60 | 10.35 | 7,188 | 16.01 |
| R4 | 0.49 | 341 | 1.76 | 14.78 | 10,264 | 22.87 |

Preliminary Design

Pipe sizing and minimum slope criteria are developed for each reach considering initial and ultimate PWWF. Ultimate combined PWWF are used to size the sewer main while meeting MSWD's hydraulic depth ratio criteria. Initial combined flows and pump station capacity are used to calculate gravity sewer main slope while maintaining MSWD's minimum 2 fps cleaning velocity as shown below in Table 3-12, Alternative 4 Preliminary Design. Force main sizing is also included in Table 3-12. Preliminary profiling along the R3 and R4 reaches showed that the existing ground slope is approximately 1.86%. Therefore, the pipe slopes for R3 and R4 required additional investigation, resulting in the data contained in Table 3-12 below.

**Table 3-12
ALTERNATIVE 4 PRELIMINARY DESIGN WITH PRELIMINARY PROFILE UPDATES**

| Alternative 4: Dillon Force Main/Sewer and Little Morongo Trunk Sewer | | | | | | |
|--|---------------------------|---------------------------|--------------------------------|-------------------------------|-----------------------|-----------------------------|
| Reach | Pipe Diameter (in) | Min. Slope (ft/ft) | Manning's Roughness (n) | Max. Depth Ratio (d/D) | Velocity (fps) | Sewer Capacity (cfs) |
| Alt. 4, R1, Initial Flow (2.45 cfs) | Force Main | | | | | |
| Alt. 4, R1, Ultimate Flow (5.64 cfs) | Force Main | | | | | |
| Alt. 4, R2, Initial Flow (3.0 cfs) | 24 | 0.006 | 0.013 | 0.28 | 4.17 | 3.66 |
| Alt. 4, R2, Ultimate Flow (7.20 cfs) | 24 | 0.006 | 0.013 | 0.45 | 5.32 | 7.30 |
| Alt. 4, R3, Initial Flow (3.0 cfs) | 33 | 0.015 | 0.013 | 0.15 | 5.64 | 3.15 |
| Alt. 4, R3, Ultimate Flow (24 cfs) | 33 | 0.015 | 0.013 | 0.43 | 10 | 24.9 |
| Alt. 4, R4, Initial Flow (3.54 cfs) | 36 | 0.0106 | 0.013 | 0.16 | 5.22 | 3.81 |
| Alt. 4, R4, Ultimate Flow (32.02 cfs) | 36 | 0.0106 | 0.013 | 0.48 | 9.55 | 32.02 |

Due to the existing topography along Dillon Rd where the existing ground is sloping in the opposite direction of the sewer it is desirable to run the sewer as shallow as allowable for R2 while still remaining low enough to accept the SB-28 flows at the intersection of Atlantic Ave and Dillon Road. A preliminary check of sewer depths using reach lengths and slopes is critical. With the typical 0.1' drop across sewer manholes spaced at every 350' feet, the ending point for R2 at the intersection of Dillon and Little Morongo Road yields a flowline depth of approximately 35' as shown below in Table 3-13, Preliminary Depths.

**Table 3-13
ALTERNATIVE 4 PRELIMINARY DEPTHS**

| Reach | Start Ground Elevation (ft) | Start Flowline Depth (ft) | End Ground Elevation (ft) | End Flowline Depth (ft) |
|--------------|------------------------------------|----------------------------------|----------------------------------|--------------------------------|
| R1 | Force Main | | 844.55 | 7.59 |
| R2 | 844.55 | 7.50 | 856.04 | 34.80 |

At this flowline depth, the pipe cover is approximately 32'. While this depth is beyond MSWD's typical pipe cover allowance of 20', the alternative should be further explored. Construction costs at this depth may be slightly higher than normal, but a reduction in pumping costs would be experienced.

Lift Station Modification

Currently, the Dos Palmas Lift Station conveys flows tributary to R1 to the HWWTP. As described above, the Dos Palmas Lift Station consists of an 8' diameter wet well housing two 60 HP submersible sewage pumps each capable of 700 gpm at 133' TDH. It was confirmed that the Dos Palmas Lift Station has a design capacity of 1 MGD (700 gpm) of PWWF, and 0.35 MGD (240 gpm) of ADWF maintaining one pump as redundant backup capacity.

Alternative 4 also proposes to utilize the Dos Palmas Lift Station by conveying initial flows through the R1 force main as described above. This required investigation into the capacity of the existing Dos Palmas Lift Station.

The preliminary analysis indicated the following modification or replacement would be required at the existing Dos Palmas Lift Station:

- a) **Initial Flows:** Either impeller replacement of the existing pump or pump replacement would be required in order to meet the new interim system conditions (it is assumed, the newly installed variable frequency drive (VFD) will be used with a new proposed system).
- b) **Ultimate flows:** It is anticipated, the capacity of the existing wet well will not be adequate to handle the ultimate wastewater flows. Consequently, the new wet well or new pump station would be required to meet these conditions. Currently there is a duplex pumping unit installed in the existing wet well. However, for the ultimate wastewater flow, it would be required to install at least three pumps in the future wet well.

Based on the preliminary analysis, it is assumed the newly installed VFD will allow for reuse of the existing pumps, and the new duty point would be within the allowable pump recommended operational range (less than 1,100 gpm with frequency less than 55 Hz).

If reusing the existing pump is not possible, the new design parameter of the proposed pumps for interim conditions shall be around 1,100 gpm (1.58 MGD) of PWWF, which would translate to 400 gpm (0.58 MGD) of ADWF.

Force Main Sizing - Scenario 1

The sewer pump station and force main will be sized based on ADWF and ultimate PWWF. Due to the wide range of flow between initial ADWF and ultimate PWWF, various force main sizes were considered. The force main sizes have a direct impact on the pump station electrical requirements. For example, larger force mains have much lower power requirements than smaller force mains. The preliminary analysis indicated a 12" diameter ductile iron pipe would be required in order to meet the new system requirements of Alternative No. 4.

In order to adhere to MSWD's velocity requirement, the R1 force main is sized at 12" to accommodate ultimate flows. Table 3-14 shows the velocity, head loss per 1,000 feet values, and braking horse power for R1 at the existing and ultimate flow rates.

Table 3-14
FORCE MAIN SIZING - SCENARIO 1

| | GPM | Pipe Diameter (in) D.I. | C Factor | Pipe Length (ft) | TDH Head Loss (ft) | Velocity (fps) | Head Loss per 1,000 ft | BHP (hp) |
|-----------------|------------|--------------------------------|-----------------|-------------------------|---------------------------|-----------------------|-------------------------------|-----------------|
| Initial | 1,100 | 12 | 120 | 7,531 | 50 | 2.61 | 2.41 | 50 |
| Ultimate | 2,000 | 12 | 120 | 7,531 | 155 | 5.21 | 8.68 | 150 |

Force Main Sizing - Scenario 2

Due to high peaking factors within the flow projections, there was a very wide range between initial and ultimate wastewater flows. To accommodate the wide range of initial and ultimate ADWF and PWWF, a dual force main is also considered. A dual force main provides flexibility, redundancy, significantly lowers the horsepower of the pumps, especially with a long alignment, and would keep the velocities within typical design ranges.

A dual 10" diameter polyvinyl chloride (PVC) force main would provide the adequate velocities to transfer flow from the pump station to the new wastewater treatment plant for the low and peak flow scenarios. During the initial or ultimate ADWF period, only one force main would need to be in use, while the second force main could be brought on-line during the PWWF periods.

Table 3-15 shows the expected pipeline (dual force main) velocities associated with the low (initial) and high flow (ultimate) scenarios.

**Table 3-15
FORCE MAIN SIZING - SCENARIO 2**

| | GPM | Pipe Diameter (in) PVC | C Factor | Pipe Length (ft) | TDH Head Loss (ft) | Velocity (fps) | Head Loss per 1,000 ft | BHP (hp) |
|------------------------------|-------|------------------------|----------|------------------|--------------------|----------------|------------------------|----------|
| Initial FM1 or FM2(*) | 950 | 10 | 120 | 7,531 | 66.49 | 4.39 | 8.8 | 50 |
| Ultimate FM1(**) | 1,100 | 10 | 120 | 7,531 | 87.21 | 5.09 | 11.6 | 75 |
| Ultimate FM2(**) | 1,100 | 10 | 120 | 7,531 | 87.21 | 5.09 | 11.6 | 75 |

(*) 950 gpm - uses existing pump and VFD's

(**) 1,100 gpm – requires pump replacement

Alternative 3 vs. Alternative 4 – Cost Comparison

Construction budgetary costs were evaluated for Alternative No. 3 and Alternative No. 4 (Scenarios 1 and 2). The total construction cost for Alternative No. 3 and Alternative No. 4 (Scenario 1) are very similar since both options include a single force main. However, the total construction cost for Alternative 4 (Scenario 2) is 5% higher than the total cost for Alternative 4 (Scenario 1) due to the additional cost of having a dual PVC force main. Although the initial cost of the dual force main is higher, the overall benefits of having a dual force main outweigh the additional capital cost.

Further details regarding the specifics of the Conveyance facilities are outlined in Appendix 1b (TKE's 2019 Report).

3.4.3 Area M2 Collection System

The District's wastewater collection service area is divided into several collection zones. One of these zones is called the M2 collection area. The sewer collection has been designed, but has not yet been installed within the M2 Collection area. One of the project components of this program is the installation of an 8-inch sewer collection system, with short runs of 12-inch to 15-inch gravity sewer. Figure 3-9 shows the location of the M2 collection area as part of the District wastewater service area. Figure 3-10 shows the detailed sewer plan for the M2 collection zone.

The Area M2 collection system will connect 687 parcels to the MSWD sewer system and abate over 406 existing on-site septic systems. This project component envisions the installation of approximately 25,260 linear feet of 4-inch gravity sewer, 17,272 lineal feet of 8-inch gravity sewer (VCP), with short runs of 12-inch to 15-inch gravity sewer. The sewer will be installed within existing public right-of-way (ROW). Extension of onsite lateral connections from the sewer mains would be completed as individual properties are developed. Developed parcels could be connected immediately after the complete sewer collection system is connected to the

sewer mains delivering wastewater to the treatment plant. The trench depths for the M2 system are estimated to be between 7-feet to 15-feet in depth. Average trench widths are estimated to be 12-inches wide. The engineers estimate that approximately lineal 400-feet of pipeline can be installed per day. Any excess soil will be made available to local contractors or used at other District facilities. Based on the assumed 400 feet of sewer line installation per day, the M2 sewer service area can be installed in approximately 115 working days.

The sewer flows from Area M2 will flow south to Dillon Road, then west along Dillon Road to the Dos Palmas Lift Station near Dillon Road and Avenida Manzana. The Dos Palmas Lift Station currently delivers flow north along Avenida Manzana to the HWWTP. However, the Conveyance System will take flows from the Dos Palmas Lift Station and deliver them to the WVWRF.

3.4.4 Construction Scenario

A general construction scenario has been developed to assist the reviewer to understand how the proposed facilities will be installed and the amount of time required for their construction. This information also provides essential data for making the air quality impact forecast using the most current CalEEmod emission forecast model.

WVWRF

The construction activities for a WVWRF consist of the following range of activities: excavation, mass grading, fine grading for each area proposed for development with facilities, such as access roads, parking, storage and landscaping; installation of WVWRF piping, electricity lines and other required support infrastructure; construction of foundations; construction of above ground facilities, including the exterior structure; installation of treatment equipment; and assembly of materials required for treatment.

Civil and site work for WVWRF construction would include grading, drainage, and site improvements. The area around new structures would be backfilled to match existing contours where feasible. Structures that extend above the surrounding grade would be backfilled to protect the structure from weathering. In general, slopes that are not subject to regular traffic would be graded to a maximum 4:1 side slope. Slopes that are subject to regular traffic would be graded to a maximum 6:1 side slope. All disturbed areas would be paved, covered with crushed stone, or landscaped with drought resistant ground cover. Areas that require routine vehicle access would be bituminous concrete roadways, consisting of a 12-inch gravel base course, a 2.5-inch bituminous concrete binder course and a 1.5-inch bituminous concrete top course. Areas that require routine pedestrian access would have concrete sidewalks. The sidewalk would consist of 4 inches of reinforced concrete on an 8-inch gravel base course. Painted steel bollards (approximately 4 inches in diameter and 42 inches high) would be provided as needed to protect equipment or structures that are near roadways. Landscaping and planting at the site would blend into the existing surrounding conditions to the extent possible.

Standard construction equipment will be used, ranging from dozers, graders and cranes, to backhoes. It is anticipated that the maximum number of construction personnel on the WVWRF project site on any given day will be 100. A maximum number of truck deliveries, probably during pouring of concrete for facilities, are forecasted at 25 per day. Note that to install wet wells and other similar facilities at the WVWRF, excavation may be as deep as 25-30 feet in certain areas. Construction of the WVWRF is expected to require about 18 months.

Further details regarding the construction and design specifics of the proposed facilities is outlined in Appendix 1a (AECOM's 2018 Report).

Sewer Collection, Force Mains and Recycled Water Pipelines

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:

- 200-400 feet of pipeline installed per day
- 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 emissions calculations are based upon the above assumptions for each pipeline installation team. For air emission calculations it is further assumed that pipelines will be installed concurrent with the treatment plant construction. Two teams will be installing pipelines for a maximum total of 800 lineal feet per day. It is assumed that installation of 66,800 lineal feet of sewer line and force main will occur over 85 days. The final activity associated with the sewer and force main installation is repaving of roads disturbed by the construction. This is anticipated to occur over a 20 day period.

3.5 ENTITLEMENTS, APPROVALS AND OTHER AGENCY PARTICIPATION

There are a wide range of other agencies that may have an interest in or be involved in the review and approval of the facilities outlined above. The following list is not intended to be exhaustive, but it provides a sense of the agencies that may participate in the review or approval of this program and specific projects. The potential participating agencies are arranged based on the individual topics contained in the standard CEQA Initial Study Environmental Checklist Form.

| | |
|----------------------------|--|
| <u>Aesthetics:</u> | Local jurisdictions, Desert Hot Springs and Riverside County, possibly including building permits |
| <u>Air Quality:</u> | SCAQMD, permit the operation of the WVWRF and possibly individual pieces of equipment (ex: stand-by emergency generator) |
| <u>Biology:</u> | If listed species are involved, the U.S. Fish and Wildlife Service and/or California Department of Fish and Game (CDFG) 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, CDFG and Colorado River Basin Regional Water Quality Control Board (CRBRWQCB) may need to participate in review of any discharge of fill into or alteration of a streambed. |

Hydrology &

Water Quality: A wide range of participation will occur for these issues. The CRBRWQCB will issue Waste Discharge Requirements (WDR) and potentially Water Recycling Requirements (WRR) for use of recycled water in the future. The California Department of Public Health must also review and approve the future use of recycled water. The County and local jurisdictions must ensure that stormwater discharges from each of the facility sites meet the current municipal separate stormwater sewer standards (MS4); and a Stormwater Pollution Prevention Plan (SWPPP) must be implemented for each location where disturbance exceeds one acre. To construct the facilities a Notice of Intent must be submitted to the State Water Resources Control Board for a General Construction Permit, which is then enforced by the CRBRWQCB. Finally, if any flood hazard areas are affected by the proposed project, County Flood Control, the City, and FEMA may perform reviews for this project.

Land Use &
Planning:

The City and/or County may issue conditional use permits for the facility and then building permits for construction, including grading and excavations.

Noise: Compliance with local jurisdiction Noise Element and Noise Ordinance may be necessary due to proximity of facilities to sensitive noise receptors.

Population/
Housing:

No permits or review agencies are involved with the proposed project, with the possible exception of regional planning agencies, such as Coachella Valley Association of Governments.

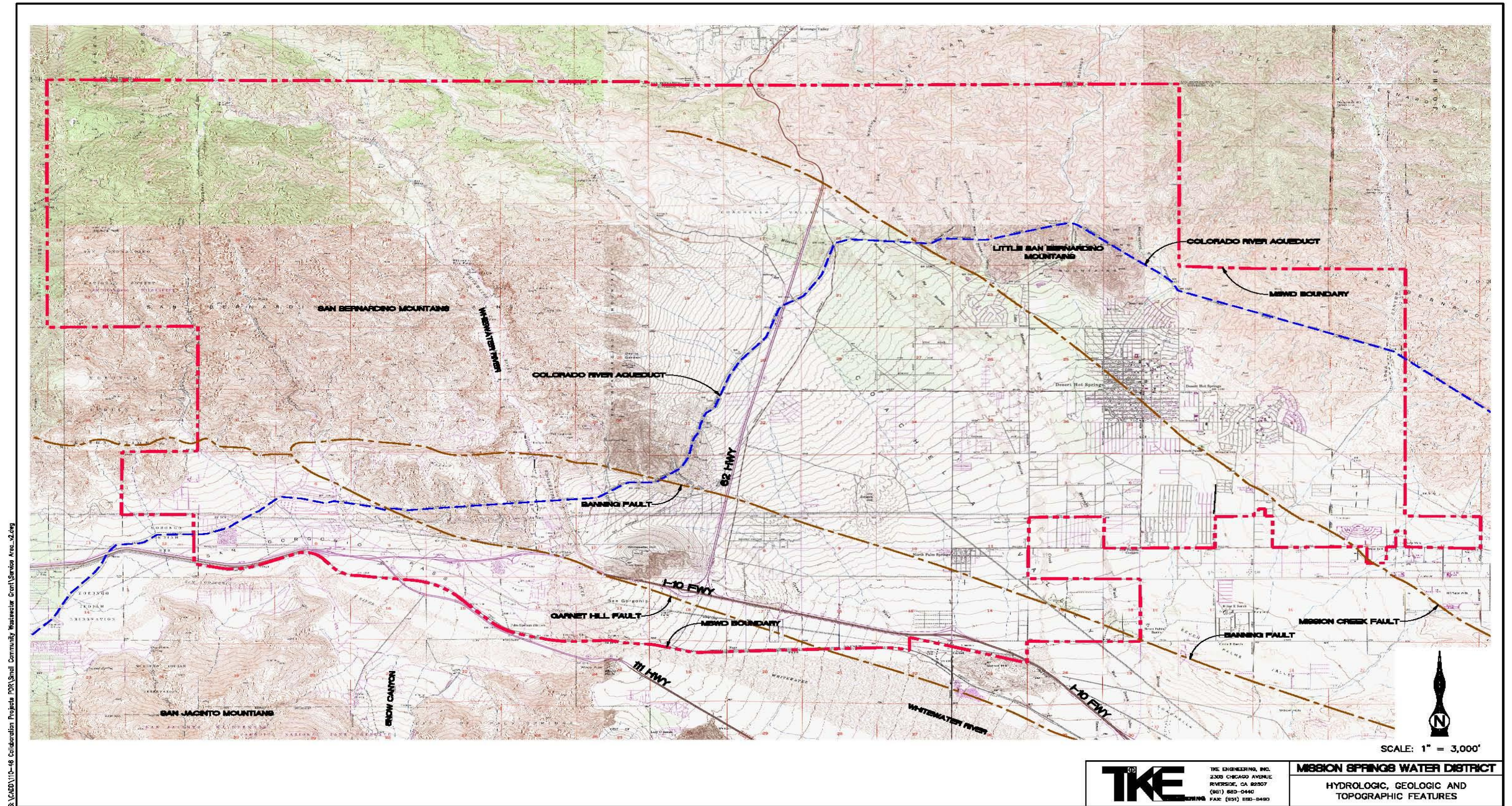
Transportation: The proposed project may require encroachment permits from Riverside County to construct the pipeline within existing road rights-of-way

No other reviewing or permitting agencies have been identified.

3.6 USES OF THIS ENVIRONMENTAL IMPACT REPORT

Before any of the proposed facilities can be implemented, MSWD must approve the proposed projects and the City may issue encroachment or development permits for the WVWRF and proposed sewer mains. These approvals can rely upon this DEIR as the basis for compliance with the CEQA. The City and County would utilize the DEIR as CEQA Responsible Agencies. Other agencies listed under Section 3.5 may use this document as CEQA Responsible Agencies to grant other approvals or entitlements.

FIGURE 3-1
Current Service Area Boundaries



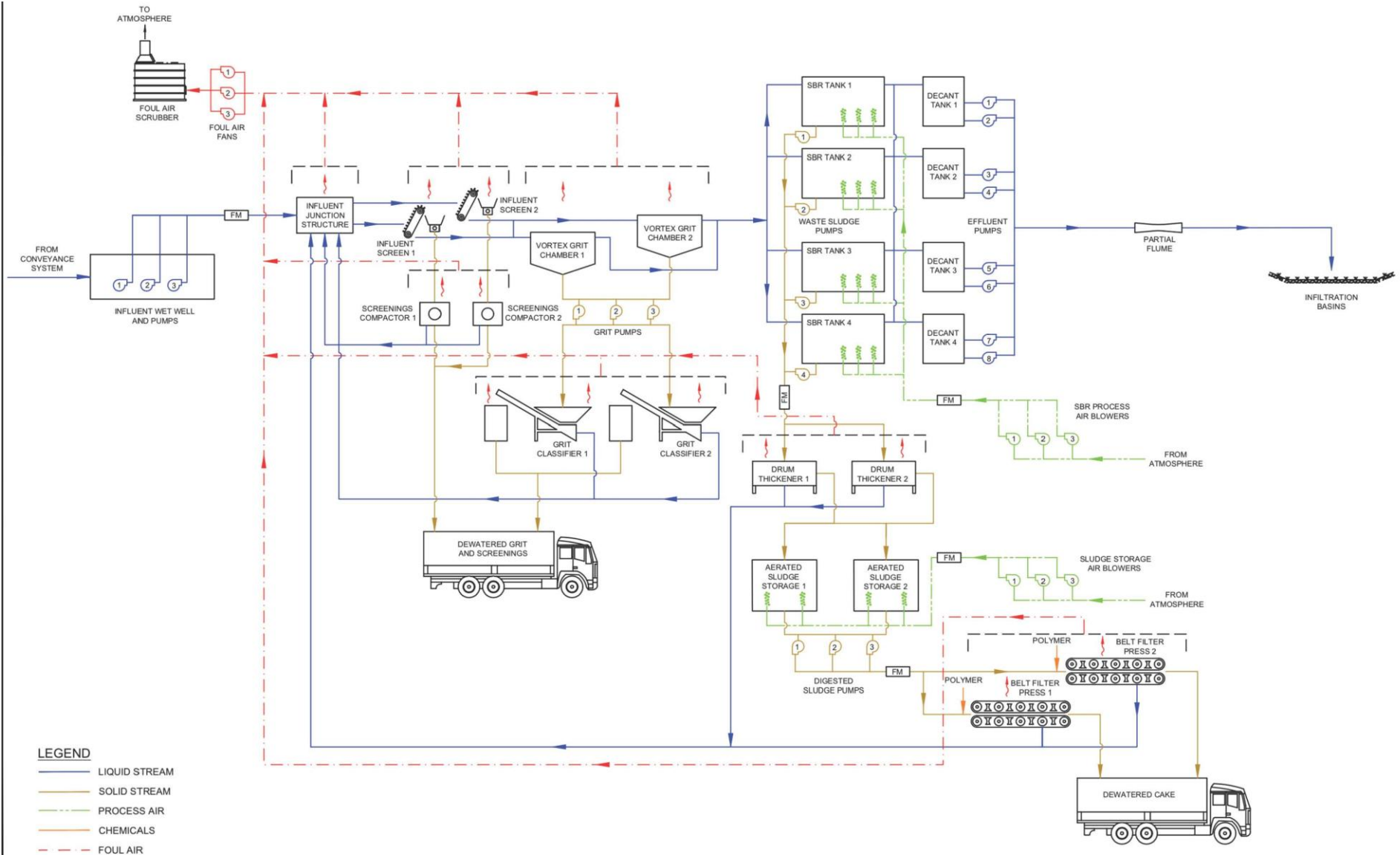
S:\CADD\110-48 Collaboration Projects PDR\Small Community Watersheds Grant\Service Area_v2.dwg

FIGURE 3-2
Location of Various Facilities Envisioned



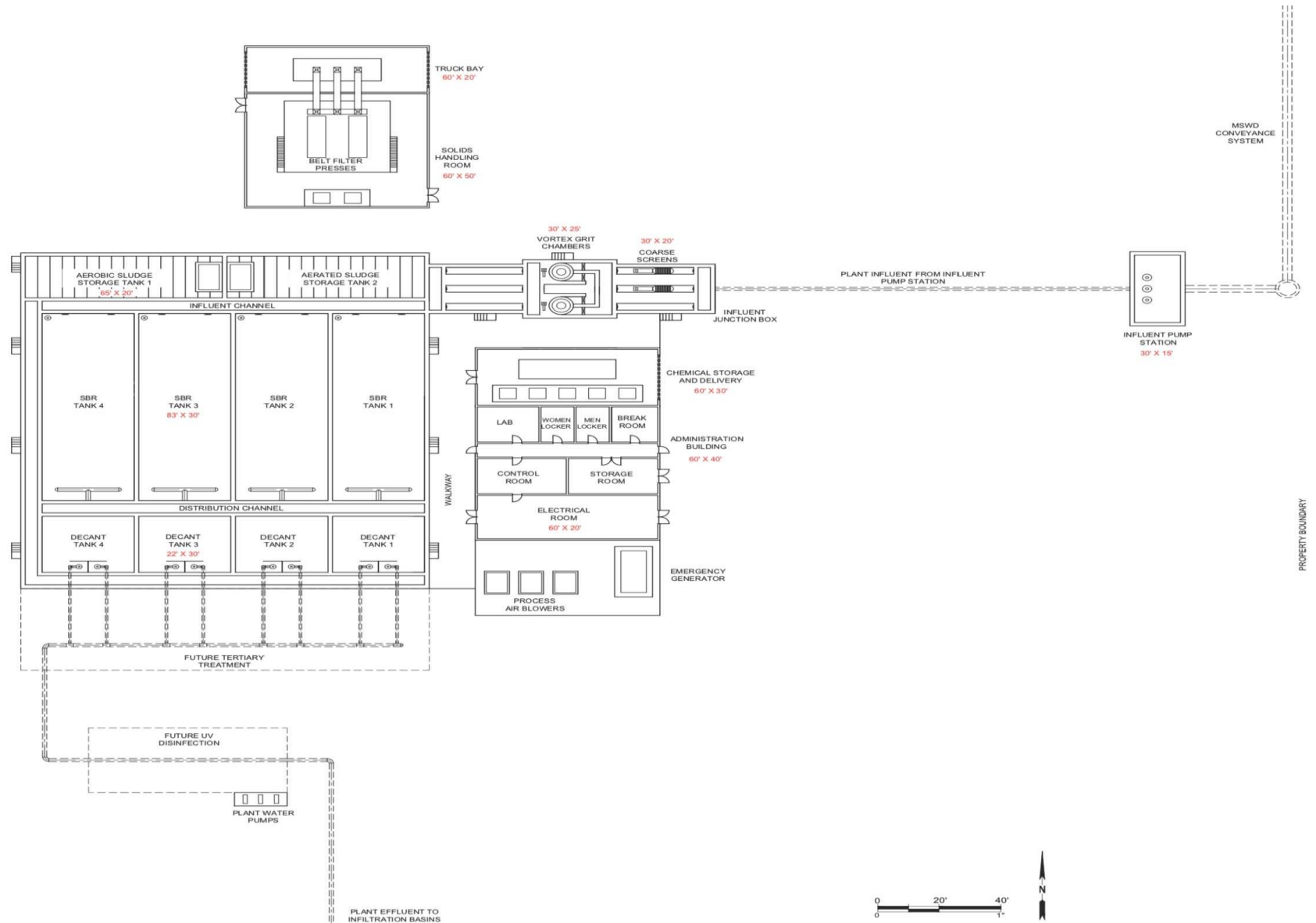
Source: AECOM

FIGURE 3-3
Process Flow Diagram and PD of Each Facility



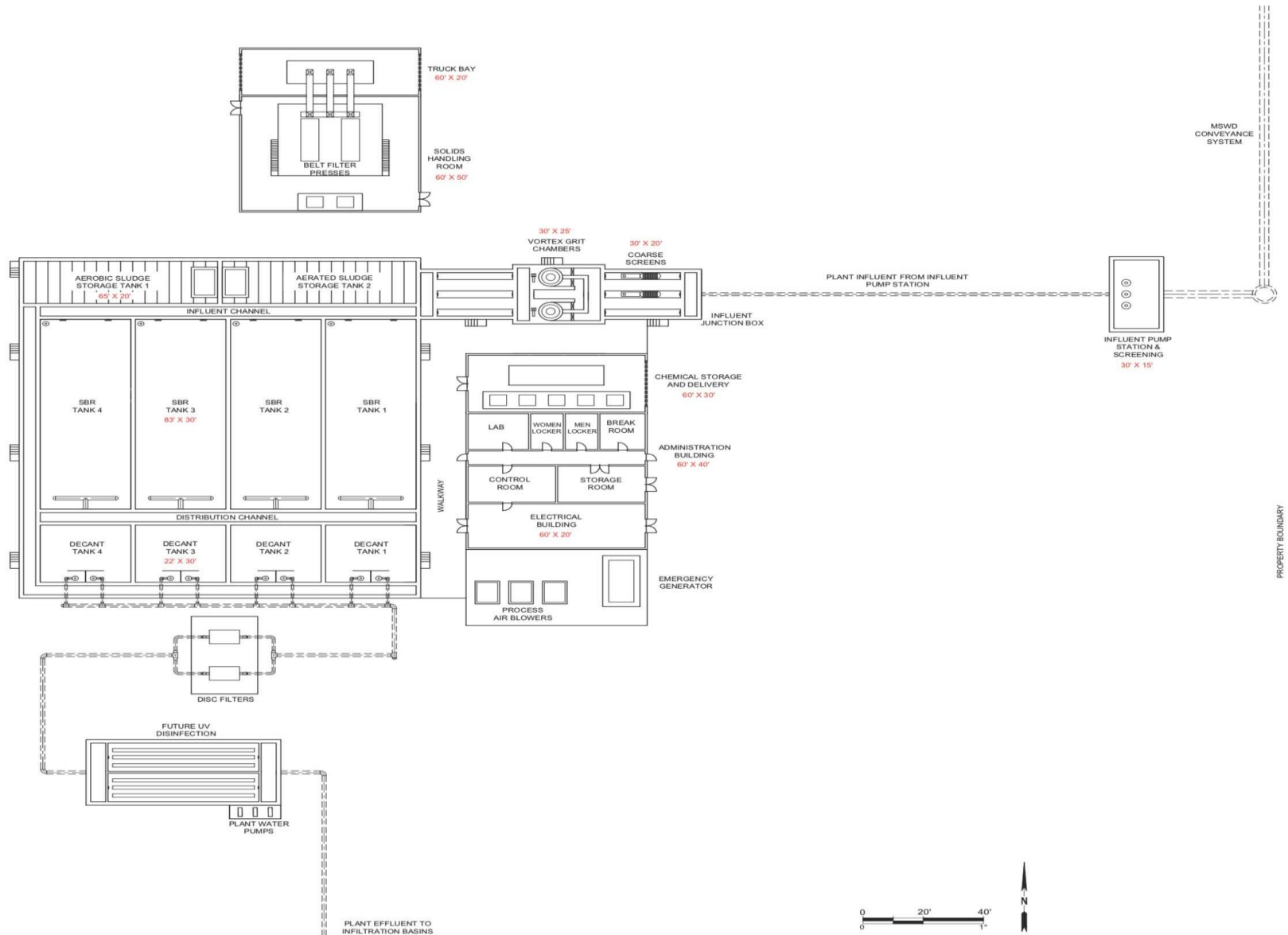
Source: AECOM

FIGURE 3-4
Site Layout and Access Roadway



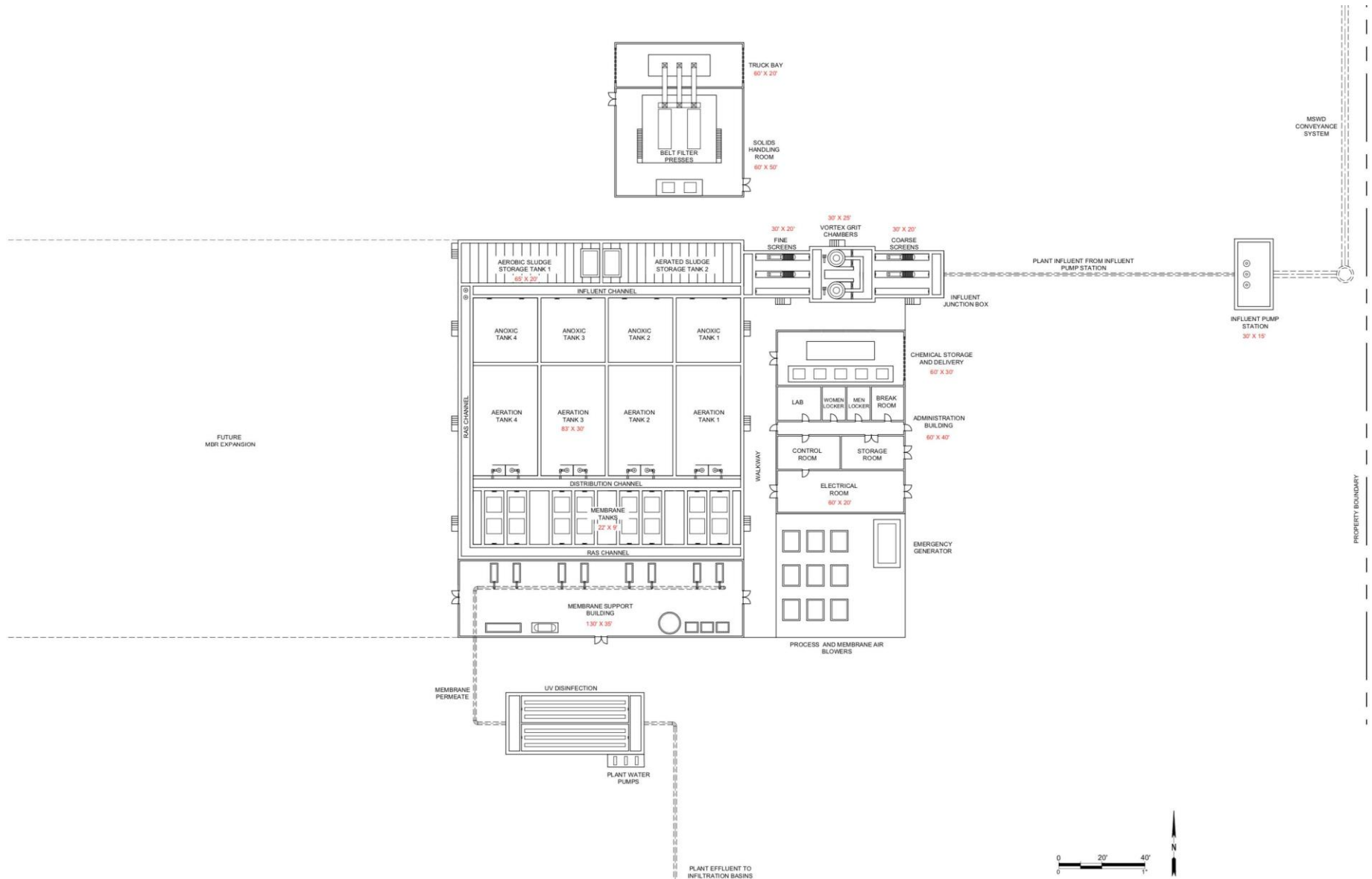
Source: AECOM

FIGURE 3-5
Site Layout and Access Roadway



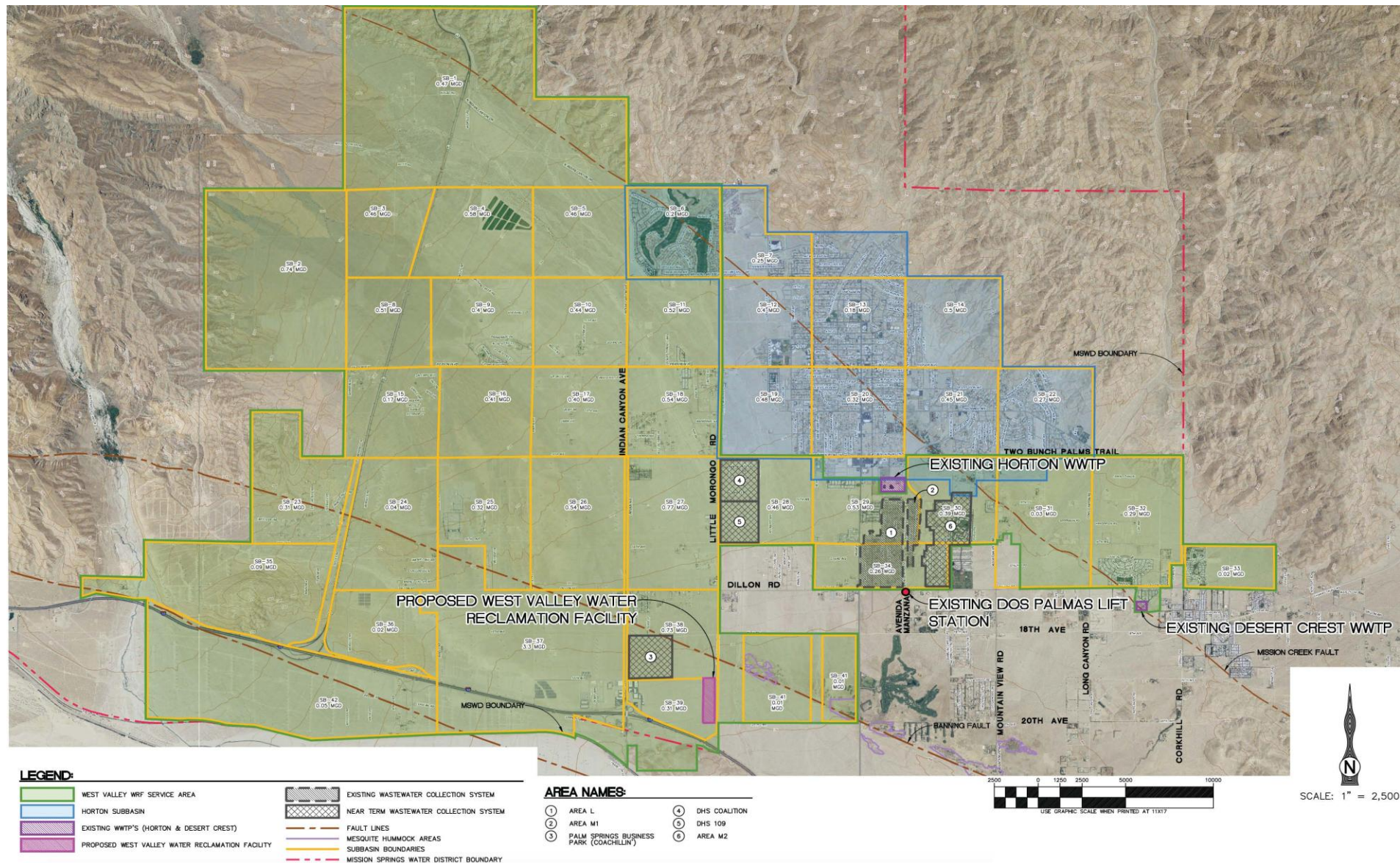
Source: AECOM

FIGURE 3-6
Site Layout and Access Roadway



Source: AECOM

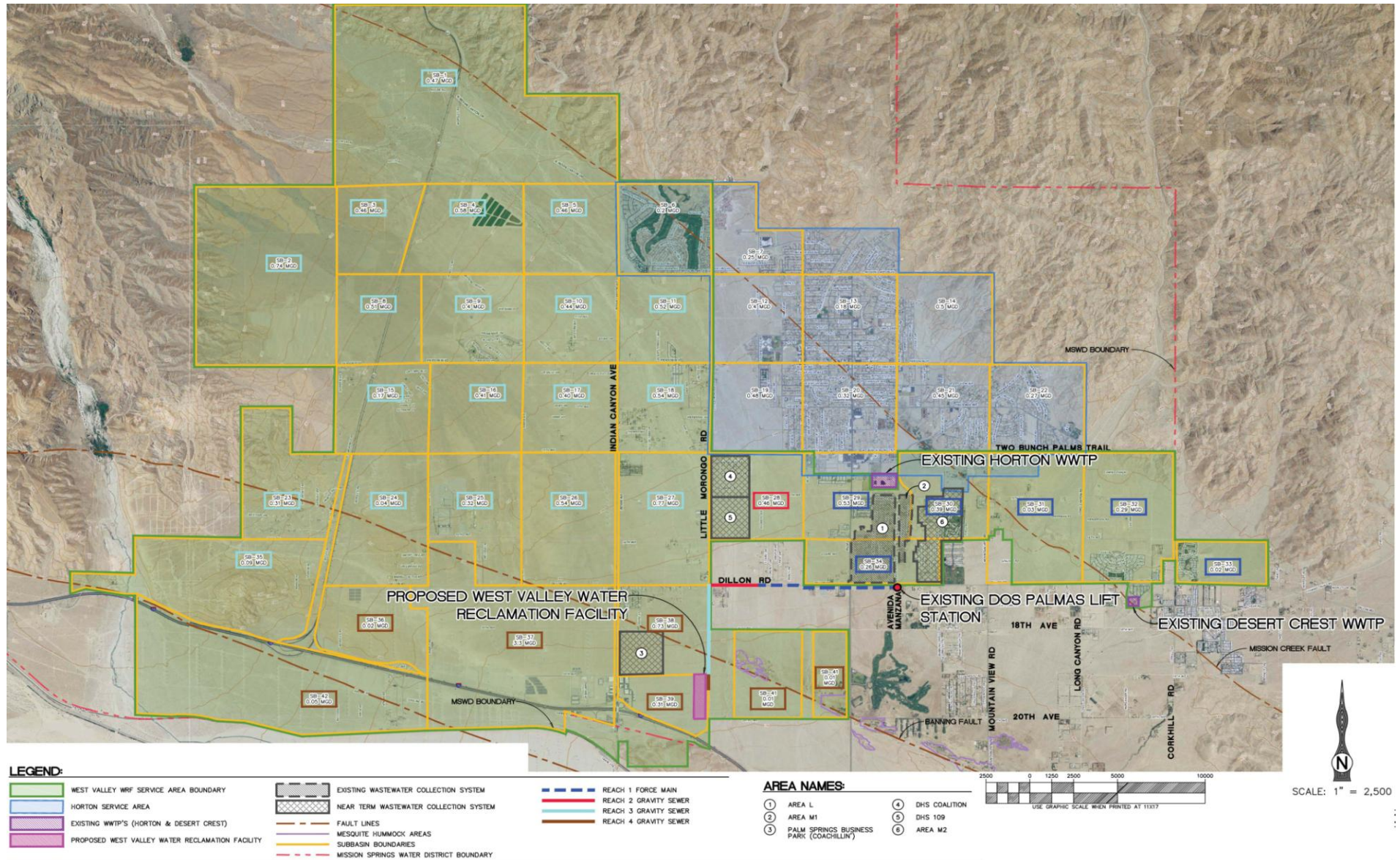
FIGURE 3-7
Sewer Conveyance System



Source: TKE Engineering

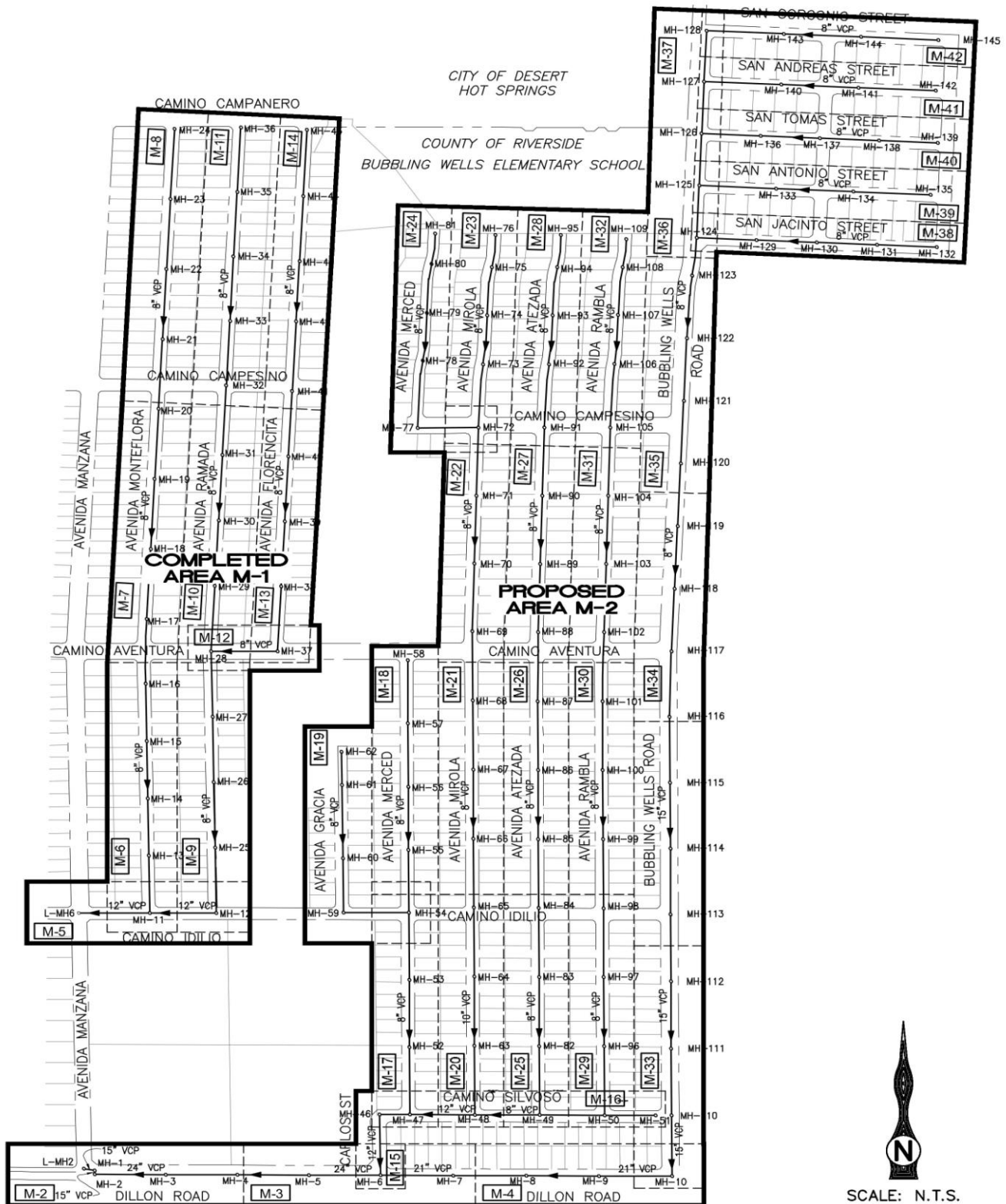
Tom Dodson & Associates
Environmental Consultants

FIGURE 3-8
Alt. 4 – Dillon Force Main/Sewer and Little Morongo Trench Sewer



Source: Mission Springs Water District

FIGURE 3-10
Detailed Sewer Plan for M-2 Collection Zone



Source: TKE Engineering

Tom Dodson & Associates
 Environmental Consultants

CHAPTER 4 – ENVIRONMENTAL IMPACT EVALUATION

All Chapter 4 figures are located at the end of each subchapter; not immediately following their reference in text.

4.1 BACKGROUND

The Mission Springs Water District (MSWD or District) is proposing to implement a West Valley Water Reclamation Program (WVWRP or Program) that includes constructing municipal wastewater collection and treatment systems that will eliminate many individual septic systems that overlie the Mission Creek and Desert Hot Springs aquifers. MSWD has successfully completed many of its Groundwater Quality Protection Program (GQPP) projects since 2006, and continues efforts to complete GQPP projects resulting in a need for additional treatment capacity. MSWD has elected to pursue the completion of its Regional Wastewater Program, now known as the WVWRP, to meet the growing wastewater treatment capacity needs within its service area. The WVWRP has three components: construction of a West Valley Water Reclamation Facility (WVWRF), construction of a conveyance system connecting existing sewer areas to the WVWRF, and constructing a collection system for GQPP Area M2 (to be served by the WVWRF), refer to Figures 3-2, 3-8, 3-9, and 3-10 of Chapter 3, Project Description.

MSWD provides water and sewer services to the communities of Desert Hot Springs, West Garnet, North Palm Springs, and various portions of nearby unincorporated Riverside County. MSWD currently has 9,100 sewer connections throughout its service area. The GQPP is a separate program that MSWD has implemented over the last several years, and ultimately will remove more than 7,200 septic tanks that will ultimately be connected to MSWD's sewer system. As the GQPP implementation progressed, the need for additional sewage treatment capacity within the MSWD service area was recognized. This added sewage flow would be diverted to the planned WVWRF that would be located on a 60-acre site along the west side of Little Morongo Road, between 19th Avenue and 20th Avenue. The new WVWRF will receive wastewater flows through a new conveyance pipeline that will connect to the existing Dos Palmas Lift Station (shown on Figures 3-8, 3-9, and 3-10 of Chapter 3, Project Description). The District's wastewater collection service area is divided into several collection zones. One of these zones is called the M2 collection area. As part of this Draft Program Environmental Impact Report (Program DEIR), the M2 collection area will be served by the new WVWRF through new sewer pipeline and connections.

MSWD has prepared this Program DEIR for the MSWD WVWRP that evaluates the potential environmental impacts that would result from constructing and implementing the Program. The focus of the analysis, in accordance with Section 15146 of the State CEQA Guidelines, addresses the specific effects of the proposed Project as presented in Chapter 3, Project Description. However, it is the combination of authorizations and entitlements requested for this Project that must be approved by MSWD to allow the Program to be implemented.

MSWD concluded that an EIR must be prepared to address the potential impacts associated with the proposed Project. The decision to prepare an EIR is documented in the Notice of Preparation (NOP), which is provided in this document as Subchapter 8.1. The decision to prepare an EIR was based on the finding that the proposed Project may have one or more significant effects on the environment.

This chapter of the Program DEIR provides the detailed information used to forecast the type and significance of potential environmental impacts that implementation of the proposed project and related actions could cause if the project is implemented as described in Chapter 3, the Project Description.

In the following subchapters, as discussed in Chapter 2 of this document, all of the environmental topics identified in Appendix G of the State CEQA Guidelines will be evaluated in this DEIR.

The environmental impact analysis section for each environmental topic is arranged in the following manner:

- a. An introduction that summarizes the specific issues of concern for each subchapter, as identified in the NOP scoping process;
- b. A summary of the current or existing environmental setting for each physical resource or human infrastructure system is presented as the baseline from which impacts will be forecast;
- c. Based on stated assumptions and identified criteria or thresholds of significance, the potential direct and indirect impacts of the proposed Project are forecast and the significance of impacts is assessed without applying any mitigation;
- d. Recommended measures that can be implemented to substantially lessen potential environmental impacts are identified, and their effectiveness in reducing impacts to non-significant levels is described;
- e. Potential cumulative environmental impacts are assessed under each environmental topic, where applicable; and
- f. Significant and unavoidable environmental impacts and any significant impacts that may be caused by implementing mitigation measures are addressed.

To provide the reviewer with a criterion or set of criteria with which to evaluate the significance of potential environmental impacts, this document provides issue specific criteria, i.e. thresholds of significance, for each topic considered in this Program DEIR. These criteria are either standard thresholds, established by law or policy (such as ambient air quality standards or thresholds of significance established by the South Coast Air Quality Management District) or project-specific evaluation thresholds used specifically for this project. After comparing the forecasted physical changes to the specific environmental issue that may be caused by implementing the proposed project with the issue specific significance threshold criterion or criteria, a conclusion is reached on whether the proposed Project has the potential to cause a significant environmental impact for the issue being evaluated.

Where appropriate and feasible, measures to reduce potential significant environmental impacts are identified and described in this section of the DEIR. Over the past several years, mitigation has evolved in scope and complexity. As environmental issues are addressed in a progressive and adaptive manner, previous measures developed to mitigate project specific impacts are eventually integrated into local, regional, state and federal statutes, rules and regulations, such as the Uniform Building Code or Water Quality Management Plans. Mitigation measures that are incorporated into statutes or rules and regulations become mandatory requirements (not discretionary) and they no longer need to be identified as discretionary mitigation measures applicable to the Project, although such measures are often referenced to demonstrate that identified environmental impacts can and will be mitigated.

The text in the following subchapters summarizes all of the various measures anticipated to be incorporated into the project to reduce potential significant environmental effects, either to the extent feasible or to a level of less than significant. After determining the degree of mitigation that can be achieved by the proposed measures and after identifying any potential adverse impacts that the mitigation measures may cause, a conclusion is provided regarding the remaining level of impact, such as less than significant and/or unavoidable significant adverse impact for each environmental topic, if any.

This document utilizes conservative (worst case) assumptions in making impact forecasts based on the assumption that, if impacts cannot be absolutely quantified, the impact forecasts should over-predict consequences rather than under-predict them. The many technical studies that were prepared for this document are incorporated into this chapter by summarizing the technical information to ensure technical accuracy. These technical studies themselves are compiled in a separate volume of the Program DEIR (Volume 2) and copies of Volume 2 will be distributed in electronic form and made available to all parties on distribution upon request. The information used and analyses performed to make impact forecasts are provided in depth in this document to allow reviewers to follow a chain of logic for each impact conclusion and to allow the reader to reach independent conclusions regarding the significance of the potential impacts described in the following subchapters.

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4.2 AESTHETICS

4.2.1 Introduction

This subchapter will evaluate the environmental impacts to the issue area of aesthetic resources from implementation of the proposed project (West Valley Water Reclamation Project). The West Valley Water Reclamation Program (WVWRP) DEIR identifies the following issues, as outlined in Appendix G of the CEQA Guidelines, to assess when a project would normally have a significant effect on the environment if the project would:

- a) Have a substantial adverse effect on a scenic vista?
- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
- c) Substantially degrade the existing visual character or quality of the site and its surroundings?
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

These issues will be discussed below as set in the following framework:

- Introduction
- Environmental Setting: Aesthetics
- Thresholds of Significance
- Potential Impacts
- Project-Specific Mitigation Measures
- Cumulative Impact
- Unavoidable Adverse Impacts

The following analysis is based on the City of Desert Hot Springs General Plan, as well as a careful field review of the project site and surrounding property.

No comments were received regarding this issue area from the public at the public scoping meeting or in response to the Notice of Preparation.

4.2.2 Environmental Setting

The proposed project is located within the City of Desert Hot Springs, and within the Mission Springs Water District's (MSWD or District) service area. Refer to Figure 4.2-1 which contains an aerial photograph of the general project area. Additionally, Figures 3-7 and 3-8 show the project site within the larger MSWD service area. According to the City of Desert Hot Springs General Plan, the Desert Hot Springs area landscape setting can be characterized as follows:

The City is situated on an upper valley plain and mountain foothills within the widening low desert Coachella Valley, which ranges from one to about ten miles wide. The San Bernardino and Little San Bernardino Mountains bound the City on the west and north, respectively. The extensive alluvial plains formed by drainage from these mountains form the elevated valley on which most of the City has developed. The adjoining mountains and the San Jacinto and Santa Rosa Mountains to the southwest and south, respectively, also provide dramatic and valuable viewsheds. Development over the past decades has been focused within the existing urban growth area and in the north-central portion of the City. Approval of new residential and resort

development has been predominantly in the western portions of the City and at the eastern end of Pierson Boulevard.

The WVWRP has three components: construction of a West Valley Water Reclamation Facility (WVWRF), construction of a conveyance system connecting existing sewer areas to the WVWRF, and constructing a collection system for the Groundwater Quality Protection Program (GQPP) Area M2 (to be served by the WVWRF). The Project will develop sewer pipelines below ground level that will collect wastewater flow for delivery to the new WVWRF. The above ground component of the proposed WVWRP is the proposed wastewater treatment facility that will be located on land owned by MSWD at Little Morongo Road and 20th Avenue within the City of Desert Hot Springs about 840 feet from the Interstate 10 (I-10).

A field visit was conducted to obtain photographs that would depict the visual setting surrounding the WVWRF site; these images are provided at the end of this Chapter. The proposed WVWRF site is surrounded mostly by vacant land. The site contains a fenced in well that is maintained by MSWD. North of the project site is a solar farm, and beyond that is mostly open space with sparse development. West of the project proposed WVWRD site is open space. Several thousand feet to the west of the project site is the development (including an Arco Gas Station, a Shell Gas Station, and other related development) just off of the I-10 exit at Indian Canyon Drive. East of the proposed WVWRF site is open space and a wash. South of the proposed WVWRF site is open space and the I-10. In short, the area surrounding the proposed WVWRF site consists mostly of open space and with sparse development in the vicinity of the project site. The pipeline locations are within areas that contain development—residential, commercial, and industrial in nature—and within areas that contain open space. Area M2 is a densely populated residential area and the project would remove from service individual septic systems of the residences within this area to connect each to the proposed new sewer pipeline.

4.2.3 Thresholds of Significance

Appendix G of the CEQA Guidelines, contains four criteria for determining impacts to aesthetic resources. A project may have a significant impact on aesthetic resources if it would:

- a) Have a substantial adverse effect on a scenic vista?
- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
- c) Substantially degrade the existing visual character or quality of the site and its surroundings?
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The above questions establish the range of potential aesthetic impacts where the proposed Project may result in impacts that may exceed thresholds of significance, and they are discussed in Section 4.2.4, below. The potential visual aesthetic changes in the environment are addressed in response to the above thresholds in the following analysis.

4.2.3.1 Related Regulations

State

The California Scenic Highways program was established in 1963 to “preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways.” The state laws governing the Scenic Highway Program are found in the Streets and Highway Code, Section 260 *et seq.* No State designated or eligible scenic highways exist within the project area.

Local

The following General Plan policies apply to the aesthetics evaluation of the proposed Project.

Land Use Element: Industrial Goals, Policies and Programs

- **Policy 6:** The City shall require adherence to applicable development standards and guidelines to assure aesthetically acceptable industrial developments for all new industrial sites.
 - **Program 6A:** As an integral part of industrial park planning, the City shall require thoughtful site planning and extensive use of landscaping to enhance the appearance of industrial areas.

Land Use Element: Open Space and Conservation Goals

- **Goal 1:** Open space areas which protect environmental resources, guard against environmental hazards, provide recreational opportunities and enhanced aesthetic character of the City.
- **Goal 2:** A land use pattern which preserves the City’s resort residential atmosphere, including scenic resources such as hillside and mountain vistas, waterways, and native desert communities.

Open Space and Conservation Goals

- **Goal 2:** Preservation of the City ’s desert atmosphere, including maintenance of natural and scenic resources.

Community Design Element Goals, Policies and Programs

- **Policy 7:** Integrate native and other appropriate desert landscape materials and site-sensitive architectural designs into all public and private building projects to enhance the community's cohesion between the built and natural environment.
 - **Program 7A:** Take every opportunity to integrate native and other appropriate desert landscape materials and site-sensitive architectural designs into all public building projects to enhance the community's environmental and resort residential character.
- **Policy 10:** Lighting shall be limited to the minimum height, number and intensity of fixtures needed to provide security and identification in residential, commercial and industrial development, taking every reasonable measure to preserve the community's night skies.

4.2.4 Potential Impacts

1. Would the Project have a substantial effect on a scenic vista?

The dominant landscape feature of the Project area are the mountains surrounding the project site in nearly all directions. These mountain ranges include the San Bernardino and Little San Bernardino Mountains that surround the City to the west and north. The adjoining mountains and the San Jacinto and Santa Rosa Mountains to the southwest and south, also provide dramatic and valuable viewsheds. The proposed Project would replace the foreground view at the WVWRF site with the various components that would make up the WVWRF. The proposed elements of the WVWRF would not be greater than 20 feet in height. The City of Desert Hot Springs developed on the elevated portion of the Coachella Valley, sloping from the lowest points within the City at the City's southern border to the highest points within the City towards the mountains at the City's northern border. The proposed WVWRF site is located at an elevation of 710' at its lowest point at Little Morongo Road and 20th Avenue, while the base of the mountains at Little Morongo Road north of the project site are at an elevation of 1,340'. Given that there is no development directly surrounding the WVWRF site, and that the project is located away from the scenic viewshed of the mountains approximately 5.5 miles north of the project site, development of the WVWRF at this location will not impact scenic vistas in the vicinity of the project. The remaining elements of the WVWRP include the development of the proposed sewer pipeline alignment, which would be located underground once constructed, and would therefore have no potential to impact a scenic vista. Thus, the proposed Project is forecast to alter the views across the WVWRF property but not obstruct or substantially interfere with any of the existing scenic views that presently exist across the property.

2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway?

The nearest officially designated State scenic highway is State Highway 62 located approximately five miles northwest 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.

There are no unique or landmark features located onsite within the WVWRF site boundaries or within the roadways in which the new pipeline alignments are proposed to be constructed. The WVWRF site contains vegetation that is characteristic of the surrounding desert landscape, but there are no landscape features that distinguish the project site from the surrounding land.

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.

3. Substantially degrade the existing visual character or quality of the site and its surroundings?

The WVWRF site currently consists of undeveloped land in a sparsely developed portion of the City of Desert Hot Springs. The only existing feature of the WVWRF site is the well that is located at the northeast corner of the project site. Desert land with shrubs and scattered rock comprise the majority of the project site. Very little developed land surrounds the project site. The only exception is the solar farm just north of the project site.

The proposed WVWRF consists of the various components typical of a wastewater treatment facility, including the following: influent pump station; coarse screening with screenings compactor; vortex grit removal with grit classifiers; sequencing batch reactors (SBR); effluent disposal to infiltration basins; aerated sludge storage with decanter for gravity thickening; rotary drum thickener; 3-Belt Belt Filter Press (GBT + BFP) for biosolids dewatering; contract disposal of biosolids; and, odor control. The development of the WVWRF at this site would be noticeable given that it would develop a site that is mostly undeveloped and that is surrounded by open space desert. The WVWRF site is far enough from any surrounding development that it would not be immediately visible to the surrounding development. However, the visual character of the site will change, and given the vast open space surrounding the WVWRF site, mitigation measure 4.2-1 and 4.2-2 are required to minimize the change in the visual character at the WVWRF site. Furthermore, implementation of mitigation measures 4.2-1 and 4.2-2 would ensure that the proposed project complies with the City of Desert Hot Springs General Plan Goals, Policies, and Programs outlined above related to aesthetics. With the implementation of mitigation measures 4.2-1 and 4.2-2, impacts to the visual character or quality of the WVWRF would be consistent with City design standards and the developed site would result in less than significant aesthetic impacts.

The proposed sewer pipeline alignment is not anticipated to degrade the existing visual character of the project footprint and its surroundings because these pipelines, once constructed, would be located underground within existing roadways and throughways. As each segment of pipeline is installed, the roadway will be repaved with new asphalt where applicable within the alignment or the dirt road- and through-ways will be recompact and leveled to again function as a road- or through-way; the buildings and residences adjacent to these streets are anticipated to remain unchanged. Given that construction of each segment of pipeline is temporary, and that the roadways in which the pipeline shall be constructed will be repaved or regraded once each segment of pipeline has been replaced, the visual character of the project footprint and surrounding area will remain effectively unchanged. Therefore, no permanent impacts are anticipated and no mitigation is required to minimize impacts from the construction of the sewer pipeline.

4. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The WVWRF will not require substantial light at night except for security purposes, and the sewer pipeline alignments would be located underground, and once installed would require no lighting to operate. If required, nighttime security lighting used during the construction phase of the proposed projects may introduce new sources of light and glare to the existing views of the area. However, construction activities are limited to daylight hours unless an emergency occurs, and therefore a significant temporary night- or glare- impact from construction is not anticipated to occur from implementation of the WVWRP.

The WVWRF is removed from nearby sensitive receptors by about three quarters of a mile, which is a sufficient distance to prevent any project related light and glare impacts to the nearby residents north of the project site. However, given the vast open space surrounding the project, the introduction of a new source of light at the WVWRF site may cause an impact to the nighttime views in the project area. The project must comply with applicable goals and policies of the City of Desert Hot Springs General Plan and related ordinances of the City of Desert Hot Springs Zoning Ordinance. As such, the development of the WVWRF site will require compliance with Zoning Ordinance Section 17.40.170, Outdoor Lighting Standards. The purpose of this Ordinance is to:

Maintain ambient lighting levels as low as possible in order to enhance the City's community character and charm and maintain dark skies; provide for good visibility while maintaining minimum glare and spillage onto other properties or into the sky; and maintain safety, utility, security and productivity while enhancing nighttime enjoyment of property and the night skies.

Table 17.40.170 of the Zoning Ordinance (Requirements for Shielding and Filtering of Outdoor Lighting) provides specific shielding and filtering requirements guidelines based on the type and intensity for outdoor lighting uses that would be applicable to a project such as the proposed development of the WVWRF at the proposed project site. Section 17.40.170.F, Prohibited Lighting, also lists prohibited types of outdoor lighting. Development of the proposed WVWRF in compliance with Section 17.40.170 of the Zoning Ordinance, is mandatory; as such, compliance with Section 17.40.170 would minimize impacts to below significance thresholds. Additionally, development of the WVWRF at the proposed project site would require compliance with the City's General Plan, Community Design Goal, Policies and Programs—Policy 10 and Program 10A of –which will be accomplished through the implementation of mitigation measure 4.2-3, which will ensure that the project preserves the City's night sky. Therefore, the new sources of light and glare associated with project development would not have a significant impact, with the implementation of mitigation measures.

4.2.5 Avoidance, Minimization and Mitigation Measures

The following mitigation measures are required to reduce potential impacts from light and glare.

- 4.2-1 Proposed facilities shall be designed in accordance with local design standards and integrated with local surroundings. Landscaping shall be installed in conformance with local landscaping design guidelines as appropriate to screen or break up views of new facilities and to integrate facilities with surrounding areas.***
- 4.2-2 The proposed WVWRF structures shall be painted in a color that closely matches the color of the surrounding desert area so as to create continuity in area views.***
- 4.2-3 Lighting shall be limited to the minimum height, number and intensity of fixtures needed to provide security and identification in residential, commercial and industrial development, taking every reasonable measure to preserve the City's night skies.***

4.2.6 Cumulative Impacts

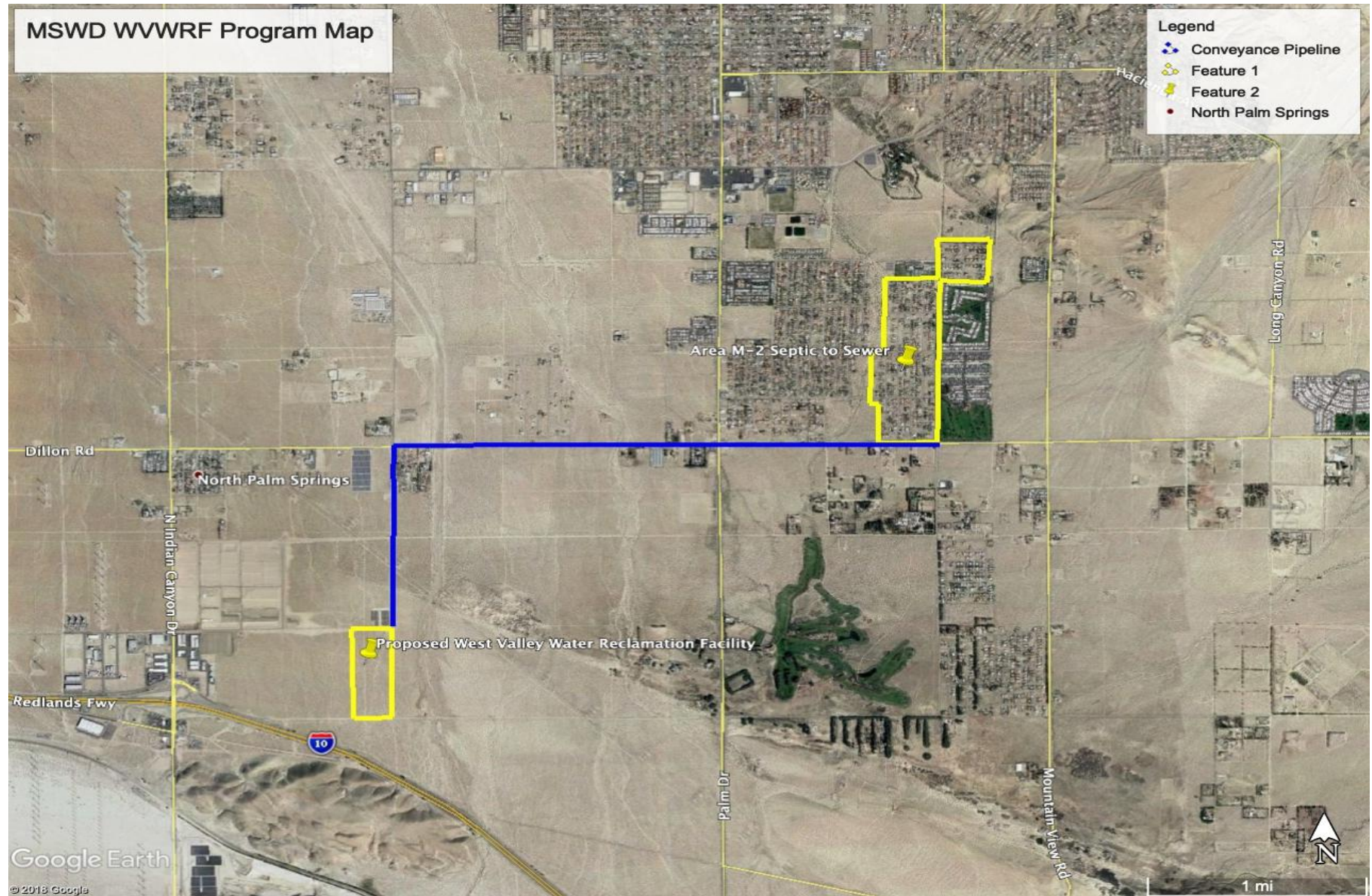
Development of the proposed Project will contribute to the change of the general area with an intensification of development substantially greater than that which presently occurs on the site. There will be an associated change in the visual setting, but based on the project's required consistency with the adopted General Plan land use designation, this change in view is considered less than significant and will not contribute to visual cumulatively considerable adverse change in the visual setting. The proposed Project modifications to the onsite landscape were not identified as being a significant adverse aesthetic/visual impact.

4.2.7 Unavoidable Significant Adverse Impacts

The existing visual setting of the proposed Project site will be permanently altered. The intensification of development greater than that which presently occurs on the site will change the visual setting. However, due to this project's required visual consistency with the adopted General Plan land use designation, this impact has been determined to be a less than

significant aesthetic impact. No unavoidable significant adverse impact to the issues of aesthetics would occur as a result of implementing the proposed Project.

FIGURE 4.2-1
Aerial Photo of General Project Area





DILLON ROAD LOOKING NORTH



DILLON ROAD LOOKING EAST



DILLON ROAD LOOKING NORTH



DILLON ROAD LOOKING EAST



DILLON ROAD LOOKING NORTH



LITTLE MORONGO ROAD LOOKING SOUTH /
SOUTHEAST



DILLON ROAD AND LITTLE MORONGO ROAD
LOOKING WEST



LITTLE MORONGO ROAD LOOKING SOUTH



LITTLE MORONGO ROAD LOOKING SOUTH

4.3 AGRICULTURAL RESOURCES

4.3.1 Introduction

This section describes the potential for the project to impact agricultural and forest resources. The data and analysis in this section are based on information gathered from the California Department of Conservation (CDC): California Important Farmland Finder, which is part of the CDC's Farmland Mapping and Monitoring Program, the California Department of Forestry and Fire Protection Fire and Resource Assessment Program (FRAP).

4.3.2 Environmental Setting

The West Valley Water Reclamation Program (WVWRP) is located within the City of Desert Hot Springs within Mission Spring Water District's (MSWD) service area, which does not contain any agricultural or forest land. The WVWRF site consists of mostly vacant land covered in shrubs and scattered rocks typical of the desert landscape that is common throughout the Coachella Valley. The WVWRF site also contains an existing well that is part of MSWD's service area. The surrounding area consists of mostly undeveloped desert land, though a solar farm is located just north of the WVWRF site. The proposed sewer pipeline alignments will be developed within existing rights of way or through-ways.

The proposed WVWRF site is designated for Light Industrial (LI) use by the City of Desert Hot Springs General Plan, while the proposed sewer pipeline alignment traverses through the following land uses that are part of the Desert Hot Springs I-10 Community Annexation Land Use: Light Industrial (LI), Rural Desert (RD), Commercial Retail (CR), Open Space-Water (OS-W), Rural Residential (RR), and Medium Density Residential (MDR). The GQPP Area M2 (to be served by the WVWRF) is not within the Desert Hot Springs I-10 Community Annexation Land Use, and is designated for Residential Low Density (R-L). As stated above, according to the General Plan Land Use Map, no agricultural or forestry uses are located within the City of Desert Hot Springs. The WVWRF site is not under active Williamson Act contract, and the sewer pipeline alignment will be located within existing road- and through-ways, which would not conflict with Williamson Act land, especially given that none exists within the City. According to the California Important Farmland Finder map of the project area (Figure 4.3-1), the WVWRF site is designated as Other Land which is characterized as vacant land and non-agricultural land; the pipeline alignment traverses through both other land, urban and build-up land, and rural residential land. Additionally, according to the FRAP Management Landscape Map (Figure 4.3-2) the WVWRF site and the entire footprint of the sewer pipeline alignment are located outside of Reserve land that would contain forestry resources.

According to the City of Desert Hot Springs General Plan, Big Morongo Canyon has been designated to protect a desert oasis where perennial surface water supports an extensive willow and cottonwood forest. This forest provides habitat for the endangered least Bell's vireo, and attracts birds to what has become an internationally famous bird watching site.

4.3.3 Regulatory Setting

State

California Farmland Mapping and Monitoring Program

The California Department of Conservation, under the Division of Land Resource Protection, has established the Farmland Mapping and Monitoring Program (FMMP). The FMMP monitors the conversion of the state's farmland to and from agricultural use. The map series identifies eight classifications and uses a minimum mapping unit size of 10 acres. The FMMP also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The FMMP maintains an inventory of state agricultural land and updates its "Important Farmland Series Maps" every two years (DOC, 2016b). Important farmlands are divided into the following five categories based on their suitability for agriculture.

Prime Farmland. Prime Farmland is land with the best combination of physical and chemical characteristics able to sustain long-term production of agricultural crops. This land has produced irrigated crops at sometime within the four years prior to the mapping date.

Farmland of Statewide Importance. Farmland of Statewide Importance is land that meets the criteria for Prime Farmland but with minor shortcomings such as greater slopes or lesser soil moisture capacity.

Unique Farmland. Unique Farmland has even lesser quality soils and produces the state's leading agricultural crops. This land is usually irrigated, but also includes non-irrigated orchards and vineyards.

Farmland of Local Importance. Farmland of Local Importance is land that is important to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

Grazing Land. Grazing Land is land on which the existing vegetation is suited to the grazing of livestock.

Williamson Act

The California Land Conservation Act of 1965, also known as the Williamson Act, is designed to preserve agricultural and open space lands by discouraging their premature and unnecessary conversion to urban uses. Williamson Act contracts, also known as agricultural preserves, create an arrangement whereby private landowners contract with counties and cities to voluntarily restrict their land to agricultural and compatible open-space uses. The county of San Bernardino has Williamson Act contracts in place, mainly within the Cities of Chino, Chino Hills and Ontario (City of Chino, 2016).

California Public Resources Code section 12220(g)

The California Public Resources Code defines "forest land" under section 12220(g) as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Projects are subject to this code if there are any potentially significant changes to existing areas zoned as forest land.

California Public Resources Code section 4526

The California Public Resources Code defines “timberland” as land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis after consultation with the district committees and others. Project may have significant impacts to timberland if the project conflicts with existing zoning.

California Government Code section 51104(g)

The California Government Code defines “timberland production zone” under section 51104(g) as an area which has been zoned pursuant to Sections 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h) of the Government Code 51104. Projects may significantly impact timberland resources if the project conflicts with existing areas zoned for timberland production.

Local

There are no policies within the City of Desert Hot Springs General Plan that apply to agricultural or forestry resources because of the lack of such resources within the City.

4.3.4 Thresholds of Significance

The criteria used to determine the significance of impacts related to Agricultural and Forestry resources are based on Appendix G of the CEQA Guidelines. The proposed project would result in a significant impact to Agricultural and Forestry resources if it would:

1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
2. Conflict with existing zoning for agricultural use, or a Williamson Act Contract;
3. 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));
4. 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; or
5. Result in the loss of forest land or conversion of forest land to non-forest use.

No agricultural or forest/timberland issues were raised in the comments submitted in response to the Notice of Preparation. Refer to Chapter 2 of this DEIR for a discussion of NOP comments and copies of the NOP comment letters provided in Chapter 8 of this DEIR. The evaluation of potential impacts associated with the development of the project site as proposed, and the findings regarding the significance of potential environmental effects of implementing the proposed Project are presented in the following section of this DEIR.

4.3.5 Project Impacts

The findings regarding the existing environment at the project site verify that it does not contain any substantial agricultural resource value. Further, the site is not located in an area with forest or timberland resources, as the hot, dry summers and lack of water make it unsuitable for forest and timberland uses. This section of Subchapter 4.3 evaluates the level of adverse impact to the site's agricultural and forest/timberland resources (or lack thereof) that is forecast to occur if the project is implemented as proposed. The level of significance is evaluated through the evaluation of the significance of the site's identified agricultural resources and forest/timberland resources and the degree of change that will result from implementing the proposed Project. This evaluation is presented by answering the following questions posed in Appendix G of the CEQA Guidelines.

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

Based on the data presented in Environmental Setting discussion, none of the project site contains any farmland. Based on classifications shown on the map gathered from California Department of Conservation: California Important Farmland Finder (Figure 4.3-1), the proposed project footprint does not contain any farmland, and no designated farmland is located within the City of Desert Hot Springs. The WVWRP footprint includes land designated as "other land" "urban and build-up land," and "rural residential land." Given the lack of designated agricultural resources, implementation of the WVWRP would not interfere with any 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. As such, implementation of the WVWRP would not result in conversion of farmland that may not have been previously identified by the California Department of Conservation. Therefore, the proposed WVWRP would not convert farmland to non-agricultural use.

2. Would the Project Conflict with existing zoning for agricultural use, or a Williamson Act Contract?

As described above, 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) supports light industrial uses and is surrounded by a variety of uses, none of which are 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 WVWRP.

3. Would the Project Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

There are no existing zoning ordinances that pertain to forest land, timberland, or timberland zoned Timberland Production. 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 WVWRP.

4. Would the Project Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

As described in the preceding evaluation, the proposed Project has no potential to cause changes in the existing environment that could result in conversion of farmland to non-agricultural uses or forest land to non-forest use. No such agricultural or forest uses occur in the vicinity of the project site and the proposed changes in land use have no potential to cause conversion of actively farmed land to non-agricultural uses or forested lands to non-forest use. Therefore, no impacts are anticipated under this issue.

5. Would the Project Result in the loss of forest land or conversion of forest land to non-forest use?

There is no land zoned for forest land or timberland on the Project site or in the vicinity of the Project site. No impact to forest or timberland would occur as a result of implementing the proposed Project. No impact will occur, and no mitigation is required.

4.3.6 Avoidance, Minimization and Mitigation Measures

The evaluation of impacts to agricultural resources and to forest land and timberland resources presented above concluded that no significant adverse impacts to such resources would result from implementing the proposed Project. With no potential for significant impact to agricultural resources or resource values, or to forest land and timberland resources from implementing the proposed Project, no mitigation is required.

4.3.7 Cumulative Impacts

Since the proposed Project will not have any adverse impact to significant agricultural resources or resource values, or to forest land and timberland resources, it cannot make a cumulatively adverse considerable contribution to such resources or values. Therefore, no cumulative impacts to agricultural, forest land or timberland resources will result from implementing the proposed Project.

4.3.8 Unavoidable Significant Adverse Impacts

The proposed Project is not forecast to cause any significant adverse impacts to agricultural resources or resource value, or to forest land and timberland resources. No unavoidable significant impact to agricultural, forest land or timberland resources will result from implementing the proposed Project.

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**FIGURE 4.3-1
Farmland Map**

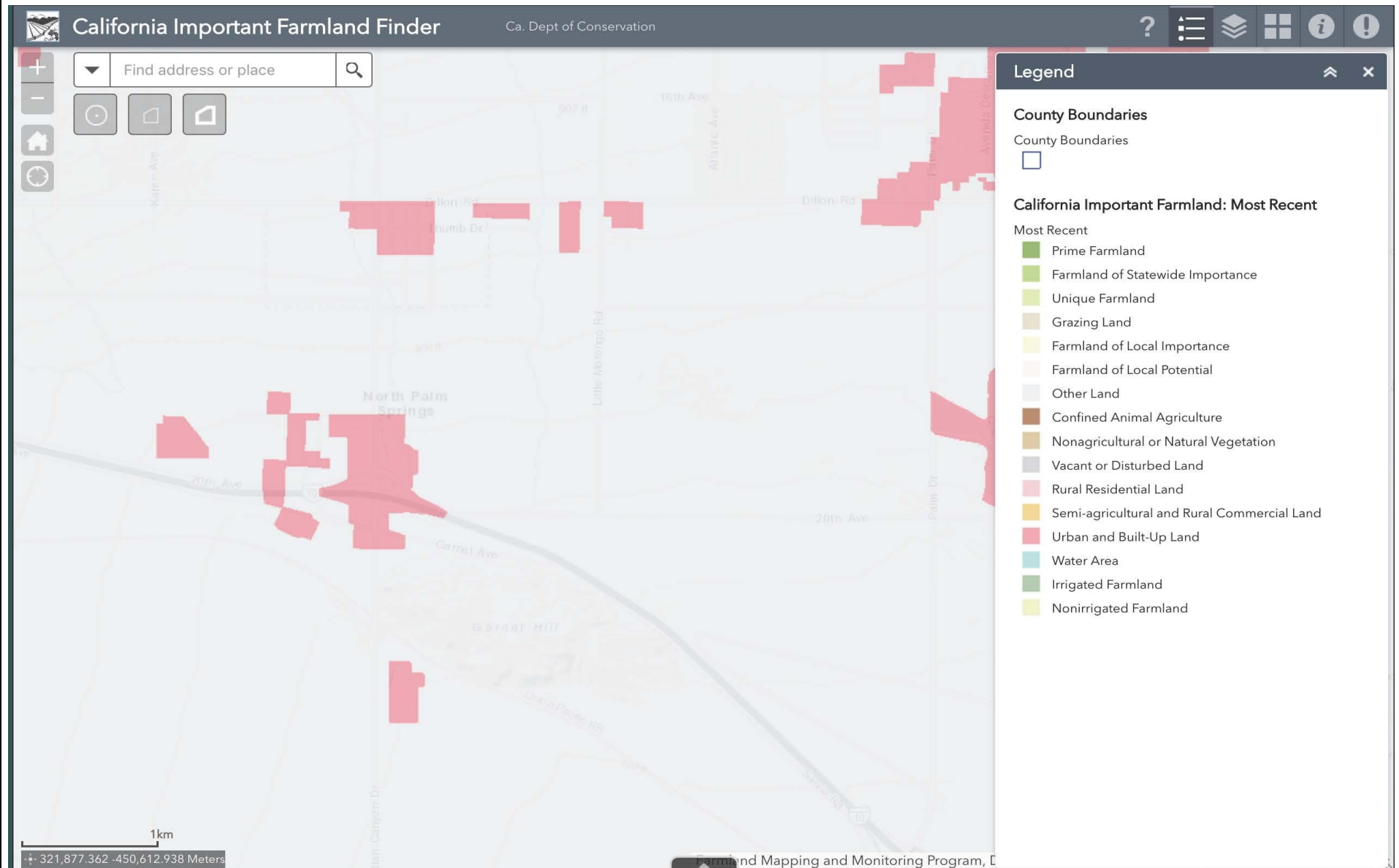
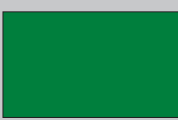

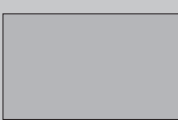







FIGURE 4.3-2

THE MANAGEMENT LANDSCAPE

| | |
|---|--|
|  Reserve 19,822,000 acres |  WORKING Public/Rural Residential 120,000 acres |
|  Urban 3,300,000 acres |  Public/Sparsely Populated 30,926,000 acres |
|  AGRICULTURE Rural Residential 1,166,000 acres |  Private/Rural Residential 3,085,000 acres |
|  Sparsely Populated 9,446,000 acres |  Private/Sparsely Populated 33,034,000 acres |

PREDOMINANT LAND USE

Urban: Lands having housing densities greater than 1 unit per acre or commercial, not assumed to have value as habitat.

Agriculture: Lands for which primary use is agriculture (crops, orchards, vineyards, irrigated pastures, and other farming activities), presumed to have some habitat value.

Working: Lands held or managed for some degree of commodity output, usually range or forested lands. Human impact is definite and measurable yet there remains considerable habitat value.

Reserve: Public or Private lands permanently protected from conversion of natural land cover and having mandated management plans in operation to maintain a primarily natural state, but which may receive management practices that degrade the quality of the natural communities (equivalent to GAP Management Status classes 1 & 2).

HOUSING DENSITY

Rural Residential: Lands with housing densities greater than 1 unit per 20 acres (> 32 units per square mile) and less than 1 unit per acre.

Sparsely Residential: Lands with housing densities less than 1 unit per 20 acres (< 32 units per square mile).

OWNERSHIP

Public: Lands owned by local, state, or federal government, or special districts.

Private: Lands not publicly owned, including private conservancy lands.

DATA SOURCES

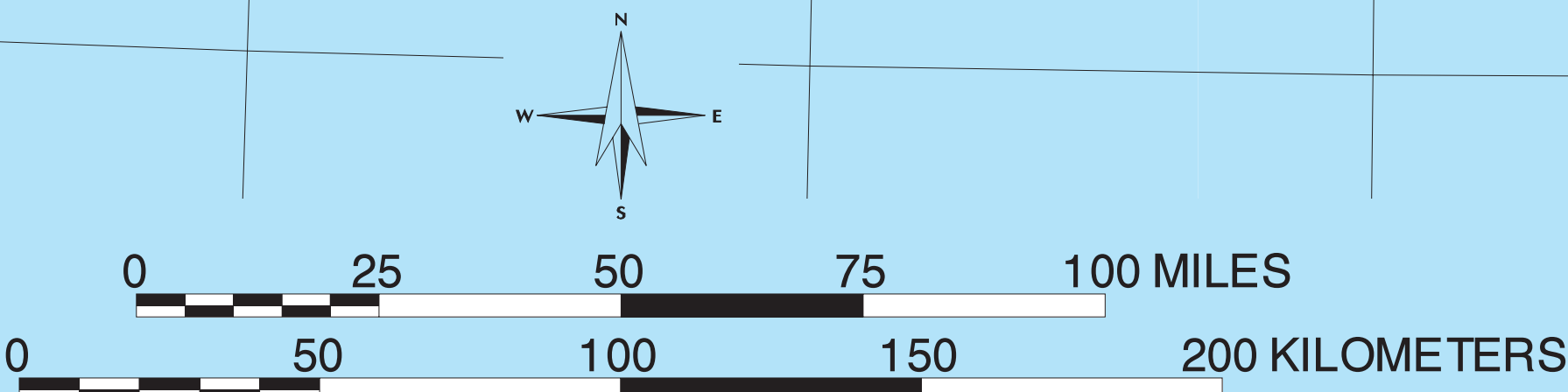
Urban & Intermix: US Dept. of Commerce 1990 Census Block data modified by CDF-FRAP to reflect uninhabitable public lands (CENBL1990M) and 1970's USGS Land Use/Land Cover data.

Agriculture: CA Dept. of Fish and Game Wetlands data for the Central Valley and 1970's USGS Land Use/Land Cover data for all other areas.

Working: Not Urban or Agriculture or Reserve.

Reserve: USDA Forest Service (1999), Bureau of Land Management (1999), GAP Management Status (1996), CA Dept. of Parks and Recreation (2000).

Public/Private: Teale Data Center ownership (GOVTOWN) (1999) and CA Dept. of Parks and Recreation ownership data (2000).



Projection Albers
Scale 1:1,000,000
at 34° x 44°
March 03, 2003

The State of California and the Department of Forestry and Fire Protection make no representations or warranties regarding the accuracy of data or maps. Neither the State nor the Department shall be liable under any circumstances for any direct, special, incidental, or consequential damages with respect to any claim by any user or third party on account of or arising from the use of data or maps.

Obtain FRAP maps, data, metadata and publications on the Internet at <http://frap.cdf.ca.gov> or from CDF-FRAP, 1920 20th Street, Sacramento, CA 95814, (916) 227-2651.

Gray Davis, Governor,
State of California
Mary D. Nichols, Secretary for Resources,
The Resources Agency
Andrea E. Tuttle, Director,
Department of Forestry and Fire Protection

MAP ID: landscapes_map

DATA SOURCES
USGS 1:100,000 DLGs
FRAP Management Data v1

4.4 AIR QUALITY

4.4.1 Introduction

The *Air Quality and GHG Impact Analyses, MS-257 Mission Springs Water District Project, Desert Hot Springs And Riverside County, California* (AQGHGIA) dated February 25, 2019 was prepared by Giroux & Associates to evaluate the potential impacts to air quality associated with construction and operation of the proposed Project. A copy of the AQGHGIA is provided as Appendix 2 of Volume 2 of this DEIR. Much of the information provided in the following sections is abstracted directly from this technical report with minor edits.

Mission Springs Water District (MSWD or District), as the Lead Agency pursuant to California Environmental Quality Act (CEQA), is proposing to implement a West Valley Water Reclamation Program (WVWRP or Program) that includes constructing municipal wastewater collection and treatment systems that will facilitate the elimination of individual septic systems that overlie the Mission Creek and Desert Hot Springs aquifers. Please refer to Appendix 1, Volume 2 of this DEIR for a copy of the plans that make up the WVWRP, which includes the Preliminary Design Report for the WVWRF, the Comprehensive Wastewater Facilities Strategic Plan for MSWD, and the West Valley Sewer Conveyance System Technical Memorandum. Additionally, a detailed description of the construction and operational activities associated with implementation of the WVWRP is included in the Project Description, Chapter 3 of this DEIR.

This document is a full-scope DEIR for the above-described project and all of the standard issues related to air quality identified in Appendix G of the State CEQA Guidelines. The issues pertaining to noise will be discussed below as set forth in the following framework:

- 4.4.1 Introduction
- 4.4.2 Affected Environment
- 4.4.3 Regulatory Setting
- 4.4.4 Thresholds of Significance
- 4.4.5 Environmental Consequences
- 4.4.6 Mitigation Measures
- 4.4.7 Cumulative Impacts
- 4.4.8 Unavoidable Significant Adverse Impacts

The following comment concerning air quality was received in response to the NOP for the proposed Project. No comments were received at the scoping meeting.

Comment Letter #2 from South Coast Air Quality Management District (SCAQMD) (dated 3/5/19) states:

- Send DEIR and Air Quality/GHG technical appendices, along with CalEEMod files, directly to SCAQMD at address provided, submit for review
- Use SCAQMD CEQA Handbook and CalEEMod for forecast
- Use SCAQMD regional and localized significance thresholds
- Identify potential adverse AQ/GHG impacts from project construction and operations (all phases of the proposed project)
- If necessary, perform mobile source health risk assessment, including toxic air contaminant impacts
- Assess compatibility of land uses with respect to air quality (such as placing sensitive receptors near air pollution sources, or vice versa)

- Identify mitigation measures, and identify any impacts that would result from mitigation measures
- Include an Alternative Analysis
- Assess whether the project requires a permit from SCAQMD using the link provided in the Comment Letter
- Access to SCAQMD rules and relevant air quality reports are available at the phone number and link provided in the Comment Letter

Response: The Air Quality methodologies in this DEIR conform to the expectations of SCAQMD. All of the information and analysis required by SCAQMD is included in this subchapter.

Other documents referenced in the preparation of this chapter include:

- City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000

4.4.2 Affected Environment

4.4.2.1 Regional Meteorology and Climate

The proposed project site is located 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 minimum 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.

4.4.3 Regulatory Setting

4.4.3.1 Ambient Air Quality Standards

Ambient air quality standards (AAQS) identify the air pollutant concentrations that are considered safe with an adequate margin of safety to protect the public health and welfare. The standards 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) at concentrations close to the ambient standard may lead to adverse respiratory health.

National AAQS (NAAQS) were initially established in 1971 with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems, there is considerable difference between state and national clean air standards. NAAQS and California AAQS (CAAQS) currently in effect for the proposed Project area are shown in Table 4.4-1. Sources and health effects of various pollutants are shown in Table 4.4-2. The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in Table 4.4-1.

4.4.3.2 South Coast Air Quality Management District

The proposed project site is located in the Coachella Valley Planning Area (CVPA) of the SSAB. The SSAB was part of the SEDAB until May, 1996 when the SSAB was created. The proposed project site is located within the jurisdiction of SCAQMD which is responsible for bringing air quality in the areas under its jurisdiction into conformity with federal and state air quality standards.

4.4.3.2 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 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 4.4-3. The following conclusions can be drawn from this data:

1. 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 Palm Springs. The 8-hour state ozone standard has been exceeded an average of seven percent of all days per year in the same time period. The Federal eight-hour ozone standard is violated on around three 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.
2. Carbon monoxide (CO) measurements near the project site have declined throughout the last decade, and 1 and 8-hour CO levels were at their lowest in the past two years. Federal and state CO standards have not been exceeded in the last 10+ years. Despite continued basin-wide growth, maximum one- or 8-hour CO levels at the closest air monitoring station are less than 25 percent of their most stringent standards because of continued vehicular improvements.

**Table 4.4-1
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 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

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**Table 4.4-2
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. |

Source: California Air Resources Board, 2002.

**Table 4.4-3
AIR QUALITY MONITORING SUMMARY
(DAYS STANDARDS WERE EXCEEDED AND MAXIMUM OBSERVED CONCENTRATIONS 2013-2016)**

| Pollutant/Standard | 2013 | 2014 | 2015 | 2016 |
|---|--------|--------|--------|--------|
| Ozone^a | | | | |
| 1-Hour > 0.09 ppm (S) | 2 | 2 | 0 | 2 |
| 8-Hour > 0.07 ppm (S) | 38 | 30 | 12 | 27 |
| 8- Hour > 0.075 ppm (F) | 18 | 10 | 4 | 12 |
| Max. 1-Hour Conc. (ppm) | 0.105 | 0.095 | 0.093 | 0.099 |
| Max. 8-Hour Conc. (ppm) | 0.087 | 0.091 | 0.085 | 0.089 |
| 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 | 0.9 | 0.7 | 1.5 |
| Nitrogen Dioxide^b | | | | |
| 1-Hour > 0.18 ppm (S) | 0 | 0 | 0 | 0 |
| Max 1-hour Conc. (ppm) | 0.05 | 0.05 | 0.04 | 0.04 |
| Respirable Particulates (PM-10)^a | | | | |
| 24-hour > 50 µg/m ³ (S) | 23/120 | 64/359 | 36/270 | 56/313 |
| 24-hour > 150 µg/m ³ (F) | 0/120 | 1/359* | 0/270 | 0/313 |
| Max. 24-Hr. Conc. (µg/m ³) | 38.1 | 152* | 145. | 137. |
| Ultra-Fine Particulates (PM-2.5)^a | | | | |
| 24-Hour > 35 µg/m ³ (F) | 0/118 | 0/112 | 0/94 | 0/115 |
| Max. 24-Hr. Conc. (µg/m ³) | 25.8 | 26.5 | 24.6 | 25.8 |

*high wind event, excluded from annual statistics

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

^aData from Indio monitoring station.

^bData from Palm Springs air monitoring station.

Source: SCAQMD Air Monitoring Summaries.

- PM-10 levels as measured at Indio, have exceeded the state 24-hour standard on 23 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. Particulate levels have frequently exceeded the more restrictive state standard.
- 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.

4.4.3.3 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 South Coast Air Basin (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, Reactive Organic Gas (ROG) and Nitrogen Oxides (NOx), and for carbon monoxide (CO), and for particulate matter are shown in Table 4.4-4. 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 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 4.4-4
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 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 (CARB) 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 µg/m ³) | 2019 |

The key challenge is that NOx 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 “conformity” and/or “consistency” in that there are no specific air quality programs or regulations governing water improvement 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.

4.4.4 Thresholds of Significance

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the Initial Study Checklist in Appendix G of the State CEQA Guidelines (14 California Code of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would:

1. *Conflict with or obstruct implementation of the applicable air quality plan.*
2. *Violate any air quality standard or contribute to an existing or projected air quality violation.*
3. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).*
4. *Expose sensitive receptors to substantial pollutant concentrations.*
5. *Create objectionable odors 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. 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 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 4.4-5
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.

Additional Indicators

In its CEQA Handbook, the SCAQMD also states that additional indicators should be used as screening criteria to determine the need for further analysis with respect to air quality. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation
- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP and in other than planned locations for the project's build-out year.
- Project could generate vehicle trips that cause a CO hot spot.

4.4.5 Environmental Consequences

Under present circumstances the WVWRF site is vacant. The Phase 1 Environmental Site Assessment historical review concluded that the project site has never been developed. The proposed sewer pipeline alignment would traverse through existing road rights-of-way, including Little Morongo Road and Dillon Road. Land uses such as those proposed by the Project affect air quality through construction and operational emissions. The proposed Project has been evaluated to determine if it will violate any air quality standard or contribute to an existing or projected air quality violation. Additionally, the proposed Project has been evaluated to determine if it will result in a cumulatively considerable net increase of a criteria pollutant for which has been designated non-attainment under an applicable federal or state ambient air quality standard. The significance of these potential impacts is described in the following section.

In order to gauge the significance of any air quality impacts attributable to the proposed Project, the AQGHGIA estimated the expected emissions associated with the construction and operation of the proposed Project using the latest version of the California Emissions Estimator Model™

CalEEMod2016.3.2. The projected construction and operational air quality impacts of the proposed Project were then evaluated in the context of the existing background air quality levels and compared to the applicable ambient air quality standards.

4.4.5.1 Construction-Related Emissions and 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 project will construct the West Valley Water Reclamation Facility (WVWRF) near the junction of Little Morongo Road and 20th Avenue. Approximately 7,200 residences currently with septic systems will ultimately tie into the plant. Conveyance pipelines for these residences as well as construction of a conveyance system connecting existing sewer areas to the WVWRF will be installed.

Construction of the WVWRF is expected to take 18 months. The approximately 80,000 linear feet of pipeline is expected to take 100 days with two teams working concurrently at a progress rate of 200-400 feet per day. Estimated construction emissions were modeled using CalEEMod2016.3.2 to identify maximum daily emissions for each pollutant during project construction.

Utilizing this indicated equipment fleet and durations shown in Table 4.4-6 the following worst case daily construction emissions are calculated by CalEEMod and are listed in Table 4.4-7. Pipeline construction is assumed to occur concurrently with construction of the WVWRF. There will be two teams laying pipeline simultaneously.

**Table 4.4-6
CONSTRUCTION ACTIVITY EQUIPMENT FLEET**

| WVWRF CONSTRUCTION(100 WORKERS PER DAY) | |
|--|-------------------|
| Phase Name and Duration | Equipment |
| Excavation and Grading (2 months) | 1 Excavator |
| | 1 Dozer |
| | 1 Grader |
| | 2 Loader/Backhoes |
| Building and Equipping (14 months) | 1 Crane |
| | 3 Loader/Backhoes |
| | 1 Generator Set |
| | 1 Welder |
| | 3 Forklifts |
| Finish and Clean Up (2 months) | 1 Paver |
| | 2 Compactors |
| | 2 Rollers |

| PIPELINE INSTALLATION (PER TEAM) | |
|--|-------------------|
| Phase Name and Duration | Equipment |
| Prep and Concrete Removal (20 days) | 1 Concrete Saw |
| | 2 Loader/Backhoes |
| Trenching and Pipeline Install (60 days) | 2 Trenchers |
| | 1 Excavator |
| | 2 Forklifts |
| | 2 Loader/Backhoes |
| Backfill and Paving (20 days) | 4 Mixers |
| | 1 Paver |
| | 2 Rollers |
| | 2 Loader/Backhoes |
| | 2 Compactors |

**Table 4.4-7
WVWRF CONSTRUCTION ACTIVITY EMISSIONS
MAXIMUM DAILY EMISSIONS (POUNDS/DAY)**

| Maximal Construction Emissions | ROG | NOx | CO | SO₂ | PM-10 | PM-2.5 |
|---------------------------------------|------------|-------------|-------------|-----------------------|--------------|---------------|
| 2019 | | | | | | |
| WVWRF | 2.8 | 26.3 | 20.6 | 0.0 | 8.4 | 4.7 |
| 1st Pipeline Team | 2.1 | 21.0 | 16.9 | 0.0 | 7.5 | 4.5 |
| 2nd Pipeline Team | 2.1 | 21.0 | 16.9 | 0.0 | 7.5 | 4.5 |
| 2019 Total | 7.0 | 68.3 | 54.4 | 0.0 | 23.4 | 13.7 |
| 2020 | | | | | | |
| WVWRF | 2.5 | 19.6 | 20.0 | 0.0 | 2.0 | 1.3 |
| 2020 Total | 2.5 | 19.6 | 20.0 | 0.0 | 2.0 | 1.3 |
| SCAQMD Thresholds | 75 | 100 | 550 | 150 | 150 | 55 |

Peak daily construction activity emissions are estimated to be below SCAQMD CEQA thresholds even if construction of the plant and two teams of pipeline installation were under simultaneous construction. There is no 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.

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. As such, mitigation measure 4.4-1 will be implemented.

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 can be controlled through mitigation measure 4.4-2.

Finally, with implementation of measures 4.4-1 and 4.4-2, construction emissions can be controlled to a less than significant impact level. Thus, **the air quality impact for Project-related construction activities, including construction of the WVWRF and of the pipeline alignment, are considered to be less than significant.**

4.4.5.2 Operation-Related Emissions and Impacts

Operational air pollution emissions will be minimal. Electrical generation of power will be used for pumping. Electrical consumption has no single uniquely related air pollution emissions source because power is supplied to and drawn from a regional grid. Electrical power is generated regionally by a combination of non-combustion (nuclear, hydroelectric, solar, wind, geothermal, etc.) and fossil fuel combustion sources. There is no direct nexus between consumption and the type of power source or the air basin where the source is located. Operational air pollution emissions from electrical generation are therefore not attributable on a project-specific basis. The project is expected to require only 20 employees. Thus, **the air quality impact for Project-related operational activities, including construction of the WVWRF and of the pipeline alignment, are considered to be less than significant.**

4.4.5.3 Localized Significance

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 only 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 distances to the closest sensitive use will vary by project component. For the treatment plant the nearest residence is 1.8 miles away so a 500 meter source-receptor distance was used. However, the pipeline will be much closer to homes, and therefore the most stringent 25 meter distance was selected for analysis. Screening level concentration data is currently published for 1, 2 and 5 acre sites. For this project the most stringent standards for a

1 acre site were used. For the LST analysis it was assumed that emissions associated with 200 linear feet could impact a single receptor on a single day.

The following thresholds and emissions in Table 4.4-8 are therefore determined (pounds per day):

**Table 4.4-8
LST AND PROJECT EMISSIONS (POUNDS/DAY)**

| LST 1.0 acres/500 meters Coachella Valley | CO | NOx | PM-10 | PM-2.5 |
|--|-----------|------------|--------------|---------------|
| LST Significance Threshold | 24,417 | 733 | 214 | 105 |
| Treatment Plant Emissions | 21 | 26 | 8 | 5 |
| Exceeds LST Threshold? | NO | NO | NO | NO |

| LST 1.0 acres/25 meters Coachella Valley | CO | NOx | PM-10 | PM-2.5 |
|---|-----------|------------|--------------|---------------|
| LST Significance Threshold | 878 | 132 | 4 | 3 |
| Pipeline Emissions | 15 | 17 | 2 | 2 |
| Exceeds LST Threshold? | NO | NO | NO | NO |

CalEEMod Output in Appendix

LSTs were compared to the maximum daily construction activities. As seen in Table 4.4-8, emissions meet the LST for construction thresholds without the need for added mitigation. Thus, **the air quality impact for Project-related LST impacts, including construction of the WVWRF and of the pipeline alignment, are considered to be less than significant.**

4.4.5.4 Toxic Pollutant Exposure

Potential exposure to diesel particulates, which have been identified by CARB as toxic particulates, will occur over a period of less than two years during construction activities that utilize diesel fueled construction equipment. Diesel particulate toxicity is measured over a period of 70 years. Such exposure only occurs adjacent to railroad tracks or freeways with large volumes of truck traffic over many years. The short period of exposure to local residents does not pose a significant toxic health hazard due to diesel particulates. Following construction there will be no continuous exposure to diesel particulates as the project site is not located near a major truck route or other source of such particulates.

Regarding ozone exposure, the local emissions (NOx and VOC) will not have an opportunity to contribute to significant ozone concentrations within the SoCAB) or the project area. Any emissions that could contribute to ozone formation will be minimal (pounds) when compared to the regional emissions in hundreds of tons per day. No direct ozone formation will occur from project implementation and the contribution of the proposed project, in the context of the emission reductions achieved by the current AQMP has no potential to cause or contribute to significant ozone concentrations in the project area or downwind of the project area.

4.4.5.5 Air Quality Management Planning

The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what used to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with SCAG, county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Currently, ozone and particulate state and federal air quality standards are exceeded in most parts of the Basin. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

In March 2017, the AQMD released the Final 2016 AQMP. The 2016 AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as, explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels. Similar to the 2012 AQMP, the 2016 AQMP incorporates scientific and technological information and planning assumptions, including the 2016 RTP/SCS and updated emission inventory methodologies for various source categories. The Project's consistency with the AQMP will be determined using the 2016 AQMP as discussed below. Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993). These indicators are discussed below:

- **Consistency Criterion No. 1:** The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

Construction Impacts

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if LSTs were exceeded. As evaluated as part of the proposed Project LST analysis (previously presented), the proposed Project's mitigated localized construction-source emissions would not exceed applicable LSTs. Therefore, the Project would not conflict with the AQMP according to this criterion for construction activity.

Operational Impacts

The previously presented LST analysis demonstrates that the proposed Project operational-source emissions would not exceed applicable LSTs, and therefore would not result in or cause violations of the CAAQS and NAAQS. Therefore, the Project would not conflict with the AQMP according to this criterion for operational activity.

On the basis of the preceding discussion, the Project is determined to be consistent with the first criterion.

- **Consistency Criterion No. 2:** The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

Overview

The 2016 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to SCAG, which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the adopted zoning and consequently the growth projections in the City of Desert Hot Springs and County of Riverside General Plans would be considered to be consistent with the AQMP.

Construction Impacts

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site's land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities.

Operational Impacts

Light Industrial (LI) use by the City of Desert Hot Springs General Plan, while the proposed sewer pipeline alignment traverses through the following land uses that are part of the Desert Hot Springs I-10 Community Annexation Land Use: Light Industrial (LI), Rural Desert (RD), Commercial Retail (CR), Open Space-Water (OS-W), Rural Residential (RR), and Medium Density Residential (MDR). The GQPP Area M2 (to be served by the WVWRF) is not within the Desert Hot Springs I-10 Community Annexation Land Use, and is designated for Residential Low Density (R-L). The proposed Project is consistent with the land use distribution and intensities set forth in the currently adopted General Plan particularly because water and wastewater infrastructure projects are considered land use independent, and in this case the WVWRF site would be developed with a less intense use than that which the General Plan has been designated for. The Project, as proposed, would not generate growth in excess of what would occur under the existing zoning classification and general plan land use designation since the proposed development intensity is less than what is set forth in the General Plan.

As such, development proposed by the Project is consistent with the growth projections in the General Plan and is therefore considered to be consistent with the AQMP. **On the basis of the preceding discussion, the Project is determined to be consistent with the second criterion.**

AQMP Consistency Conclusion

The Project would not result in or cause NAAQS or CAAQS violations of any pollutant. The LST model verifies that not even the nearest sensitive receptor would be exposed to increases in concentration of any pollutants that might exceed air quality standards, or incremental increases in pollutant concentrations that would be considered significant. The proposed Project would increase the land use density beyond that which is designated for the site by the adopted General Plan.

The Project is therefore considered to be consistent with the AQMP. Thus, based on this consistency with the AQMP, the proposed Project would have a less than significant impact under this issue.

4.4.5.6 Potential Impacts to Sensitive Receptors

The potential impact of Project-generated air pollutant emissions at sensitive receptors has been considered. Sensitive receptors can include uses such as long term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child care centers, and athletic facilities can also be considered as sensitive receptors.

Results of the LST analysis indicate that the proposed Project would not exceed the SCAQMD LSTs during construction with implementation of the recommended mitigation measures. Results of the LST analysis indicate that the proposed Project would not exceed the SCAQMD LSTs during operational activity. Thus, a less than significant impact to sensitive receptors is expected during construction and operational activity. Therefore, **sensitive receptors would not be subject to a significant air quality impact during Project construction or operations.**

4.4.5.7 Odors

The potential for the proposed Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The proposed Project does contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities, and the temporary storage of typical solid waste associated with the proposed Project's long-term operational uses. Standard construction requirements (use of low VOC architectural coatings and use of Tier 3-4 construction equipment) would minimize odor impacts resulting from construction activity. It should be noted that any construction odor emissions generated would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction activity and is thus considered less than significant.

Odors will be controlled by a system consisting of covers over selected process areas, foul air collection, and activated carbon treatment before exhausting to atmosphere (outlined in Chapter 3, Project Description). The predominant wind direction is from the west. The exhaust from the odor control system will be located near the middle interior of the site to allow for air dispersion before reaching the east property boundary. There are no receptors nearby the wastewater treatment plant site that would be within close enough proximity to experience project-related odors. Therefore, odors associated with the proposed Project construction and operations would be less than significant, and no mitigation is required.

4.4.6 Avoidance, Minimization and Mitigation Measures

SCAQMD Rules that are currently applicable during construction activity for this Project include but are not limited to: Rule 1113 (Architectural Coatings); Rule 431.2 (Low Sulfur Fuel); Rule 403 (Fugitive Dust); and Rule 1186 / 1186.1 (Street Sweepers). In order to facilitate monitoring and compliance with SCAQMD Rule 403 (Fugitive Dust) during construction activity, Rule 403 is restated as a mitigation measure.

Project construction activities are not anticipated to cause CEQA thresholds to be exceeded. However, implementation of the following mitigation measures, including BACMs and Rules restated herein for emphasis, can reduce potentially significant construction-related air quality impacts to a less than significant level or to the extent feasible.

Construction-related Mitigation Measures to control fugitive dust and equipment combustion emissions

4.4-1 *The following fugitive dust control measures shall be incorporated into Project plans and specifications for implementation:*

- *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.*

4.4-2 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.*

4.4.7 Cumulative Impacts

Criterion 1: Regional Analysis

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that after implementation of the recommended mitigation measures, construction of the proposed Project would not result in exceedances of regional air quality thresholds during construction, include NO_x. Therefore, the proposed Project construction-source air emissions would be considered a less than significant impact.

Project operational-source emissions will not exceed applicable SCAQMD regional thresholds for any emissions with implementation of the recommended mitigation measures. Per SCAQMD significance guidance, these impacts at the Project level are not considered to have a cumulatively significant impact persisting over the life of the Project.

Criterion 2: List Approach

A list approach is used, in accordance with Section 15130(b) of the CEQA Guidelines, which states the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.

The SCAQMD has recognized that there is typically insufficient information to quantitatively evaluate the cumulative contributions of multiple projects because each project applicant has no

control over nearby projects. Nevertheless, the potential cumulative impacts from the Project and other projects are discussed below. A cumulative project list was developed for this analysis and is provided in the AQGHGIA in Appendix 2 of Volume 2 of this DEIR.

With regard to determining the significance of the contribution from the proposed Project, the SCAQMD recommends that any given project's potential contribution to cumulative impacts should be assessed using the same significance criteria as for project-specific impacts. Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. This assumption is included in the SCAQMD CEQA Air Quality Handbook that establishes the thresholds of significance for both project specific and cumulative projects. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable. As previously noted, with implementation of the recommended mitigation measures, the proposed Project would not exceed the applicable SCAQMD regional threshold for construction emissions. Operational source emissions will not exceed thresholds and they are, therefore, not considered cumulatively considerable. As such, the proposed Project would not result in a cumulatively considerable/significant adverse air quality impact.

4.4.8 Unavoidable Significant Adverse Impacts

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that after implementation of the recommended mitigation measures, neither construction or operation of the proposed Project would result in any exceedance of thresholds for a criteria pollutant. Furthermore, the Project is consistent with the AQMP; the air quality impact for Project-related LST impacts, including construction of the WWRWF and of the pipeline alignment, are considered to be less than significant; and, sensitive receptors would not be subject to a significant air quality impact during Project construction or operations. Therefore, no unavoidable significant impact to air quality will result from implementing the proposed Project.

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4.5 BIOLOGICAL RESOURCES

4.5.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue area of biological resources from implementation of the West Valley Water Reclamation Program (WVWRP or Program). The thresholds analyzed in this Subchapter are derived from Appendix G of the CEQA Guidelines, which identifies the issues that examine whether the proposed Project would have a substantial adverse effect upon biological resources on the proposed project site as well as a substantial effect upon any biological resources adjacent to the proposed project site. Appendix G of the CEQA Guidelines identifies the following topics:

- a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
- b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
- c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The Notice of Preparation (NOP) determined that all of these issue areas would be analyzed in the DEIR. These issues will be discussed below as set forth in the following framework:

- Introduction
- Environmental Setting: Biology
- Thresholds of Significance
- Potential Impacts
- Project-Specific Mitigation Measures
- Cumulative Impact
- Unavoidable Adverse Impacts

The following references were used in prepared this Subchapter of the DEIR:

- City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000
- Coachella Valley Multi-Species Habitat Conservation Plan, September 2007
- Jacobs Engineering Group, *Biological Resources Assessment, Jurisdictional Delineation and Land Use Consistency Analysis for the Mission Springs Water District's West Valley Water Reclamation Program*, March 2019 (provided as Appendix 3, Volume 2 of this DEIR)

No comments specific to this topic were received in response to the NOP. No comments were received at the scoping meeting held for the proposed Project. Much of the following text is abstracted directly from the report in Appendix 3 of Volume 2.

4.5.2 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 about 108 degrees Fahrenheit (° F) in July and fall to an average annual minimum temperature of about 42° 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 Carsitas fine sand, 0 to 5 percent slopes and Carsitas gravelly sand, 0 to 9 percent slopes. These soil types consist of fine to gravelly sands that are comprised of alluvium derived from granite. 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, existing paved and unpaved roads, and transportation corridor to the south (I-10). The Collection System component of the Project is located entirely within an urban environment and the Conveyance System component is entirely within existing paved and unpaved roads surrounded by a mix of urban and undeveloped land. The proposed 60-acre WWWRf site is within an undeveloped area comprised of disturbed Sonoran mixed woody and succulent scrub habitat.

4.5.2.1 MSHCP Requirements

The County of Riverside developed the Coachella Valley Multi-Species Habitat Conservation Plan (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 60-acre WWRF site and Collection System components of the Project are outside any Conservation Areas (Figure 4.5-4). The Conveyance System component of the Project within existing Dillon Road, crosses a section of the Willow Hole Conservation Area where Dillon Road crosses Mission Creek (Figure 4.5-4). However, the Conveyance System component is entirely within existing roads (Dillon Road is an asphalt paved road) and will not impact any habitat within the Willow Hole Conservation Area. Additionally, Dillon Road crosses an area mapped by the CVMSHCP as a Biological Corridor/Linkage and a Sand Transport (alluvial) area, which is one of the Essential Ecological Processes identified in the CVMSHCP. As stated above, the Conveyance System component is entirely within existing roads and will not impact any Biological Corridors and Linkages or Essential Ecological Processes.

Although not within any Conservation Areas, the proposed 60-acre WWRF site is adjacent (west of) the Willow Hole Conservation Area. Additionally, portions of the Conveyance System component of the Project are adjacent both the Willow Hole and the Upper Mission Creek/Big Morongo Canyon Conservation Areas, respectively. Section 4.5 of the CVMSHCP identifies guidelines to avoid or minimize indirect effects from development sharing a common boundary with Conservation Areas. These Guidelines Are:

1. *Drainage* – Proposed Development adjacent to or within a Conservation Area shall incorporate plans to ensure that the quantity and quality of runoff discharged to the adjacent Conservation Area is not altered in an adverse way when compared with existing conditions. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the adjacent Conservation Area.
2. *Toxics* – Land uses proposed adjacent to or within a Conservation Area that use chemicals or generate byproducts such as manure that are potentially toxic or may adversely affect wildlife and plant species, Habitat, or water quality shall incorporate measures to ensure that application of such chemicals does not result in any discharge to the adjacent Conservation Area.
3. *Lighting* – For proposed Development adjacent to or within a Conservation Area, lighting shall be shielded and directed toward the developed area. Landscape shielding or other appropriate methods shall be incorporated in project designs to minimize the effects of lighting adjacent to or within the adjacent Conservation Area in accordance with the guidelines to be included in the Implementation Manual.
4. *Noise* – Proposed Development adjacent to or within a Conservation Area that generates noise in excess of 75 dBA Leq hourly shall incorporate setbacks, berms, or walls, as appropriate, to minimize the effects of noise on the adjacent Conservation Area in accordance with the guidelines to be included in the Implementation Manual.
5. *Invasives* – Invasive, non-native plant species shall not be incorporated in the landscape for land uses adjacent to or within a Conservation Area. Landscape treatments within or adjacent to a Conservation Area shall incorporate native plant materials to the maximum extent Feasible; recommended native species are listed in Table 4-112 [of the CVMSHCP]. The plants listed in Table 4-113 [of the CVMSHCP] shall not be used within or adjacent to a Conservation Area. This list may be amended from time to time through a Minor Amendment with Wildlife Agency Concurrence.
6. *Barriers* – Land uses adjacent to or within a Conservation Area shall incorporate barriers in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping in a Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls and/or signage.

7. *Grading/Land Development* – Manufactured slopes associated with site Development shall not extend into adjacent land in a Conservation Area.

The Project proponent should be prepared to pay the MSHCP fees and restrict all project related impacts to existing right-of-way (ROW) and/or other areas outside of the Conservation Areas. No other conservation or avoidance measures are expected.

4.5.2.2 Special Status Species and Habitats

Per the California Natural Diversity Database (CNDDDB), California Native Plant Society Environmental Index (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 *Desert Hot Springs*, *Seven Palms Valley*, *Palm Springs* and *Cathedral City* 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, California Department of Fish and Wildlife (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 11 State- and/or federally-listed species documented within the *Desert Hot Springs*, *Seven Palms Valley*, *Palm Springs* and *Cathedral City* quads, 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*)

However, the habitat requirements for Least Bell’s vireo (i.e. riparian habitats) are absent from the Project area and immediate vicinity. Therefore, no further discussion of this 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 Fish and Game Commission (FGC) (FGC #3513 & #3503.5). Furthermore, this species has been documented approximately 0.25 mile west of the 60-acre WVWRF 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 *Desert Hot Springs*, *Seven Palms Valley*, *Palm Springs* and *Cathedral City* quads is provided in Table 4 of the BRA. 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.

The Project site is not within any sensitive habitats, including any USFWS designated Critical Habitat for any federally-listed species. However, the portion of the Conveyance System component of the project that is located within Little Morongo Road is adjacent (to the west) to a section of the Mission Creek Morongo Wash System USFWS designated Coachella Valley milk-vetch Critical Habitat unit (Unit 3).

4.5.2.3 Jurisdictional Delineation

The project area was evaluated 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 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 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.

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 per a wetland indicator category, as shown in Table 4.5-1. To be considered hydrophytic, the species must have *wetland indicator status*, i.e., be rated as OBL, FACW or FAC.

**Table 4.5-1
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.

4.5.3 Thresholds of Significance

The County's IS/EA Form contains six criteria for determining impacts to biological resources in the Environmental Assessment Form. The NOP concluded that the proposed project may result in impacts that may exceed thresholds of significance for the following issue areas and they are discussed in the following section.

1. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
2. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

3. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
4. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
5. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
6. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The potential biological changes in the environment are addressed in response to the above thresholds in the following analysis. Applicable federal and state regulations for biological resources are summarized in the following text.

4.5.3.1 Federal Regulations

Federal Endangered Species Act of 1973

The Federal Endangered Species Act of 1973 (16 U.S.C. 1531-1543) and subsequent amendments provide for the conservation of endangered and threatened species and the habitats on which they depend. Federally endangered species are ones facing extinction throughout all or a significant portion of its geographical range. A federally threatened species is one likely to become endangered within the foreseeable future throughout all of or a significant portion of its range. The presence of any federally threatened or endangered species on a site generally imposes severe constraints on development; particularly if development would result in a “take” of the species or its habitat. The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct. Harm in this sense can include any disturbance to habitats used by the species during any portion of its life history.

Federal Clean Water Act

Pursuant to Section 404 of the Clean Water Act, the United States Army Corps of Engineers (ACOE) regulates discharges of dredged and/or fill material into waters of the United States. “Waters of the United States” are defined in ACOE regulations at 33 C.F.R. Part 328.3(a). Navigable waters of the United States are those waters of the United States that are navigable in the traditional sense. Waters of the United States is a broader term than navigable waters of the United States and includes adjacent wetlands and tributaries to navigable waters of the United States and other waters where the degradation or destruction of which could affect interstate or foreign commerce.

Migratory Bird Treaty Act

The Federal Migratory Bird Treaty Act (MBTA), 50 C.F.R. Part 10, prohibits take of migratory birds. Under the MTBA, it is unlawful to “pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product.” Implementation of the proposed project will be required to comply with the MTBA, which prohibits the take of migratory bird species that are considered to utilize the site and their nests or eggs. In addition, Sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

4.5.3.2 State Regulations

California Endangered Species Act

California Endangered Species Act (Fish and Game Code 2050, et seq.) (CESA) establishes that it is the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies should not approve projects which would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. CESA requires state lead agencies to notify the California Department of Fish and Wildlife (CDFW) during the CEQA process regarding potential effects to threatened or endangered species as a CEQA Trustee Agency.

California Fish and Game Code

Note the Department of Fish and Game has been renamed the California Department of Fish and Wildlife (CDFW), but the State laws still fall under, under Section 1600 of the Fish and Game Code, regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream, or lake, which supports fish or wildlife. The Code defines a stream, including creeks and rivers, as “a body of water that flows at least periodically or intermittently through a bed or channel having surface or subsurface flow that supports or has supported riparian vegetation.” Lakes under the jurisdiction of CDFW may also include man-made features.

4.5.3.3 Local Regulations

Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP)

The CVMSHCP is a joint regional planning effort of the USFWS, the CDFW, the Bureau of Land Management (BLM), the U.S. Forest Service (USFS), and the National Park Service (NPS), as well as Riverside County and most jurisdictions in the Coachella Valley, including the City of Desert Hot Springs. The WVWRP is within the planning area for the CVMSHCP. This regional multi-agency conservation plan 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 stated overall goal of the CVMSHCP is, “...to enhance and maintain the 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 CVMSHCP 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. The CVMSHCP area is divided into Conservation Areas based on a combination of ecological and jurisdictional factors. Per the CVMSHCP, 90 percent of the land within the Conservation Area is to remain open space and 10 percent may be developed. 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. Planning Area 2 (39.7 acres) of the DLVSP is located within the Willow Hole Conservation Area. As shown in Figure 4.5-4, Willow Hole Conservation Area Boundary, the Conservation Area is comprised of 5,600 acres.

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 Off Highway Vehicle (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 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 applicable individual jurisdiction, in this case City of Desert Hot Springs, which is in turn used by the Coachella Valley Conservation Commission (CVCC) 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.

City of Desert Hot Springs General Plan Biological Resources Element

The City of Desert Hot Springs General Plan includes the following Policies in the Biological Resources Element:

Biological Resources Element: Goal 1

Protection and preservation of City and regional biological resources, especially those sensitive, rare, threatened or endangered species of plants and wildlife and their habitats, and a functional, harmonious relationship and balance between nature and human development.

Biological Resources Element: Policy 2

Support all practical efforts to maintain a broad variety of habitats, including suitable habitat for rare and endangered species occurring in the City and vicinity.

Biological Resources Element: Policy 3

All development proposals on vacant lands shall be reviewed and evaluated to assure minimal impacts on existing habitat and wildlife.

Biological Resources Element: Policy 5

Encourage and cooperate in the establishment of multiple use corridors that use drainage channels and utility easements to provide wildlife corridors and public interconnection between open space areas in the community and vicinity.

4.5.4 Potential Impacts

- 1. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

No State- and/or federally-listed threatened or endangered species, or other sensitive species were observed on site during the reconnaissance-level 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, but no Coachella Valley milk-vetch were observed during the reconnaissance-level BRA survey, or other focused sensitive species surveys, and this species is not expected to occur in any significant numbers within the Project area. Per the literature review, the nearest documented Coachella Valley milk-vetch occurrences (2012) are approximately 0.3 miles east of the proposed 60-acre WWRF site and adjacent the north side of the Dillon Road portion of the Conveyance System component of the Project, respectively.

There are no Coachella Valley milk-vetch occurrences documented within the Project site and the habitat on site is only marginally-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. Therefore, it is unlikely the Coachella Valley milk-vetch occurs within the Project area in any significant numbers.

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 California Desert Conservation Area (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: Per the literature review, the nearest documented desert tortoise occurrence (2004) is approximately 3.3 miles northeast of the Project area. Per the USFWS desert tortoise Critical Habitat overlay, the Project site is not 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, per the BLM categorization of desert tortoise habitat on public lands.

The habitat within and adjacent the proposed 60-acre WVWRF site, as well as adjacent a portion of the Conveyance System component of the Project, consists of disturbed Sonoran mixed woody and succulent scrub habitat that is marginally-suitable for desert tortoise. Therefore, focused protocol-level desert tortoise surveys were conducted in 2018 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 tortoise 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 reconnaissance-level BRA survey, or other focused sensitive species surveys, and none are expected to occur within the Project area. Per the literature review, there are numerous historic CVFTL occurrences within the Project vicinity. However, 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 flat Sonoran mixed woody and succulent 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: Per the literature review, the nearest documented BUOW occurrence (2007) is approximately 0.25 mile west of the proposed 60-acre WVWRF site. There are no BUOW occurrences documented within the Project site.

Per 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 60-acre WVWRF site, as well as adjacent a portion of the Conveyance System component of the Project, does contain suitable habitat for this species for the following reasons:

- *The site and immediate vicinity contain areas of short, sparse vegetation;*
- *The site contains well-drained, friable soils; and*
- *Appropriately sized mammal burrows were observed within the Project area during survey.*

Therefore, focused non-breeding season BUOW surveys were conducted within the Project area during the 2018 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 *Desert Hot Springs, Seven Palms Valley, Palm Springs* and *Cathedral City* quads.

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.*”

As per BUOW survey guidelines, the entire Project site as well as a 500-foot (150 meters) survey buffer (where appropriate, feasible and accessible) was systematically searched by walking transects spaced at approximately 30 meters (100 feet) apart, which provided 100% visual coverage of the ground surface. During each site visit, 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. Date, time and weather conditions were logged and a hand-held, GPS unit was used to survey straight transects, to identify Project boundaries, and for other pertinent information. 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.

As stated above, general biological and focused surveys for listed species were conducted. There was no habitat identified on the project site that could support any listed species and no listed species were identified on the project site, with the exception of suitable habitat for Desert Tortoise and BUOW. As such, a preconstruction BUOW survey shall be performed, which will be implemented through mitigation listed below. Please refer to Appendix 2 for the field survey

data that verifies this finding. 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 October 2019, 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 within Appendix 3, Volume 2 of this DEIR, 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). Mitigation to ensure that no impacts occur to any desert tortoise or BUOW. Thus, with mitigation, no adverse impact to any endangered or threatened species, directly or through habitat modifications, will result from project implementation.

- 2. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

Special Species Habitat

The Project site is not within any special status habitats, including any USFWS designated Critical Habitat for any federally-listed species. However, the portion of the Conveyance System component of the project that is located within Little Morongo Road is adjacent (to the west) a section of the Mission Creek Morongo Wash System USFWS designated Coachella Valley milk-vetch Critical Habitat unit (Unit 3). The Project will not result in any impacts to adjacent Critical Habitat units, or any other special status habitats.

Jurisdictional Waters

Drainage A, Mission Creek and Morongo Wash are jurisdictional intermittent/ephemeral streams that are subject to the CWA and FGC under the jurisdictions of USACE, RWQCB, and CDFW, respectively (Figures 4.5-1 and 4.5-2). Therefore, any proposed permanent or temporary impacts to these features will require a Streambed Alteration Agreement from the CDFW, as well as CWA Sections 401/404 permits from the RWQCB and USACE, respectively.

The project will result in both temporary and permanent impacts to jurisdictional waters, including temporary excavation within Mission Creek and Morongo Wash for sewer pipeline installation, and permanent discharge of fill within Drainage A to construct the WVWRF. Table 4.5-2 lists the approximate lengths, widths and acreages of State and federal jurisdictional features on site.

**Table 4.5-2
SUMMARY OF ACREAGES OF JURISDICTIONAL WATERS ONSITE**

| Feature | Average Width (feet) | Length (feet) | Non-wetland WoUS (acres) | State Streambed (acres) |
|--------------------|---------------------------------|--------------------------|-------------------------------------|------------------------------------|
| Drainage A | 11.5 | 4,000 | 1.06 | 1.06 |
| Mission Creek | 103 | 70 | 0.17 | 0.17 |
| Morongo Wash | 64 | 70 | 0.10 | 0.10 |
| Total Acres | N/A | N/A | 1.33 | 1.33 |

USACE 404 Permit

The two most common types of permits issued by USACE under Section 404 of the CWA to authorize the discharge of dredged or fill material into WoUS are: a nation-wide permit (NWP) or an individual permit (IP). NWPs are general permits for specific categories of activities that result in minimal impacts to aquatic resources. The discharge must not cause the loss of greater than ½ acre to WoUS, including the loss of no more than 300 linear feet of streambed. Projects that would exceed these limits would require an IP.

Although the proposed sewer pipeline alignment crosses Mission Creek and Morongo Wash, these temporary construction impacts will be restricted to the Dillon Road ROW, which consists of existing fill comprised of asphalt roadway and compacted road shoulder (Figure 4.5-3). Therefore, the Conveyance System component of the Project will not impact WoUS and the proposed sewer pipeline construction will not require any Section 404 permits from the USACE.

Construction of the WVWRF component of the Project would impact Drainage A, which is an intermittent stream, non-wetland WoUS. Permanent Project-related impacts to this feature totaling no more than ½ acre or 300 linear feet would require an NWP from the USACE. Project-related impacts that would result in greater than ½ acre or 300 linear feet of permanent impacts to Drainage A would likely require an IP.

Regional Water Quality Control Board 401 Certification

The Project area is within the jurisdiction of the Colorado River RWQCB (Regional Board 7). Under Section 401 of the CWA, the RWQCB must certify that the discharge of dredged or fill material into WUS does not violate state water quality standards. The RWQCB also regulates impacts to surface water, groundwater, wetlands and both point and nonpoint sources of pollution under the Porter Cologne Water Quality Control Act through issuance of a Construction General Permit, State General Waste Discharge Order, or Waste Discharge Requirements, depending upon the level of impact and the waterway. In addition to the formal 401 Certification application materials and fee (based on area of impact), a copy of the appropriate California Environmental Quality Act (CEQA) documentation must be included with the application.

FGC Section 1600 Lake or Streambed Alteration Agreement

An FGC Section 1600 Lake or Streambed Alteration (LSA) Agreement is required for all activities that alter streams and lakes and their associated riparian habitat. In addition to the formal application materials and fee (based on cost of the Project), a copy of the appropriate CEQA documentation must be included with the application. The Conveyance System component of the Project will temporarily impact approximately 0.27 acres of CDFW jurisdictional intermittent/ephemeral streambed, where the proposed sewer pipeline alignment crosses Mission Creek and Morongo Wash. Additionally, construction of the WVWRF component of the Project would permanently and/or temporarily impact Drainage A, which is also a CDFW jurisdictional intermittent/ephemeral stream. No riparian habitat exists within the proposed Project footprint. However, Drainage A, Mission Creek and Morongo Wash are considered CDFW jurisdictional features and therefore, the Project would require a Section 1600 LSA Agreement.

Conclusion

According to the findings in the Biological Resource Assessment in Appendix 3 of Volume 2, and as summarized in the analysis provided above, the proposed Project will not adversely impact any riparian habitat or any sensitive natural community once mitigation is implemented to ensure that the above permits are acquired prior to construction within a jurisdictional feature.

The project site does contain limited areas of waters of the United States and State of California that do not support any riparian vegetation or other sensitive habitat. After mitigation the Project's impact to waters of the U.S. and State of California is reduced to a less than significant impact level.

3. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

According to the data compile in Appendix 3 of Volume 2 of this DEIR, 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. Thus, no significant direct or indirect impacts to onsite or offsite wetland resources are forecast to occur.

4. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

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. The Project site and surrounding area consists of Sonoran mixed woody and succulent scrub habitat that is suitable to support nesting birds. As discussed, 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 identified below shall be implemented. However, the State does protect all migratory and nesting native birds. 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.

5. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Goals, Policies, and programs relevant to Biological resources from the City of Desert Hot Springs Comprehensive General Plan are included in Section 4.5.3. Preparation of the Biological Resources Assessment for the proposed project concluded that any suitable habitat for special status species on the project site would be mitigated through the payment of the CVMSHCP mitigation fee Regulatory Requirement RR-4, which is consistent with Policy 2 and 3 regarding assessment and maintenance of habitat suitable for special status species within the City of Desert Hot Springs.

Ultimately, Chapter 3.40.020 of the City of Desert Hot Springs' Municipal Code determines that in order to realize the goals and objectives of the CVMSHCP and to mitigate the impacts caused by new developments in the City, the Project shall conform with the Guidelines for projects that are adjacent CVMSHCP Conservation Areas, as enforced through mitigation measure 4.5-5 below. Therefore, with implementation of mitigation, any impacts to local policies or ordinances protecting biological resources can be reduced to a less than significant impact.

6. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Please see the discussion under Item 5 above. The Project is within the CVMSHCP boundary. The proposed 60-acre WWRF site and Collection System components of the Project are entirely outside any Conservation Areas (Figure 4.5-4). The Conveyance System component of the Project within existing Dillon Road, crosses a section of the Willow Hole Conservation Area where Dillon Road crosses Mission Creek (Figure 4.5-4). However, the Conveyance System component is entirely within existing ROW (Dillon Road is an asphalt paved road) and will not impact any habitat within the Willow Hole Conservation Area. Additionally, Dillon Road crosses an area mapped by the CVMSHCP as a Biological Corridor/Linkage and a Sand Transport (alluvial) area, which is one of the Essential Ecological Processes identified in the CVMSHCP. As stated above, the Conveyance System component is entirely within existing ROW and will not impact any Biological Corridors and Linkages or Essential Ecological Processes.

Given that portions of the Project are adjacent the Willow Hole and/or the Upper Mission Creek/Big Morongo Canyon Conservation Areas, the Project shall conform with the Guidelines for projects that are adjacent CVMSHCP Conservation Areas, as enforced through mitigation measure 4.5-5 below. 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.

4.5.5 Avoidance, Minimization and Mitigation Measures

The Biological Resource Assessment (Appendix 3, Volume 2) as summarized in the preceding section identified three potential adverse impacts that require mitigation: presence of BUOW habitat and desert tortoise habitat on the project site; potential to adversely impact birds during the nesting season; and impacts to jurisdictional waters requiring MSWD to acquire several permits. The following measures are designed to mitigate the Project's potential impacts to these biological resources.

- 4.5-1** *Within 30 days prior to commencement of construction activity, a clearance survey shall be conducted by a qualified biologist to determine if any burrowing owl or their burrows are located within the potential area of impact. If occupied burrows may be impacted, an impact minimization plan shall be developed by the biologist that shall protect the burrow in place or provide for closure and relocation to an alternate burrow within the vicinity but outside of the project footprint in accordance with current CDFW and Multiple Species Habitat Conservation Plan (MSHCP) burrowing owl guidelines, including preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP). Active nests must be avoided until all nestlings have fledged.*
- 4.5-2** *Although no desert tortoise were detected during the site surveys, habitat along the pipeline alignments is considered marginally suitable for this species. Therefore, a qualified biologist shall conduct one pre-construction clearance survey within 30 days prior to initiating construction. Following the pre-construction survey, the biologist will make a determination regarding tortoise mitigation: (1) if a biological monitor should be present at the site during all clearing and grubbing activities above grade; (2) if desert tortoise fencing needs to be installed around the perimeter of the construction work zone; or (3) if no further action is required. The biologist/monitor should remain on-call during construction activities to respond to a circumstance where a desert tortoise wanders into the construction area.*
- 4.5-3** *The removal of potential nesting vegetation of native bird species shall be conducted outside of the nesting season (Raptor nesting season is February 15 through July 31;*

and migratory bird nesting season is March 15 through September 1). If vegetation must be removed during nesting season, a qualified biologist shall conduct a nesting bird survey of potentially suitable nesting vegetation prior to removal. Surveys shall be conducted no more than three days prior to scheduled ground disturbing activity. 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. If clearing is not conducted within three days of a negative survey, the nesting survey must be repeated to confirm the absence of nesting birds.

- 4.5-4** *Prior to issuance of grading permits for the project site, the site developer shall implement the Determination of Biologically Equivalent or Superior Preservation (DBESP) document and regulatory permits for disturbance of approximately 1.33-acre state and federal jurisdictional features on site. Any proposed permanent or temporary impacts to these features will require a Streambed Alteration Agreement from the CDFW, as well as CWA Sections 401/404 permits from the RWQCB and USACE.*

Alternatively, MSWD shall determine whether it is feasible to re-design some of the portions of the WVWRF that would impact these state and federal jurisdictional features to a location within the WVWRF site that would permanently impact the jurisdictional features totaling no more than ½ acre or 300 linear feet, which would enable MSWD to obtain a Nationwide Permit from the USACE, instead of an Individual Permit should development of the WVWRF result in greater than ½ acre or 300 linear feet of permanent impacts.

As a second alternative, MSWD shall determine whether it is feasible to re-design all of the portions of the WVWRF that would impact these state and federal jurisdictional features to a location within the WVWRF site that would avoid and therefore, not impact these features. If it is feasible to avoid the jurisdictional features within the WVWRF site, MSWD shall not be required to obtain any regulatory permits.

- 4.5-5** *MSWD shall adhere to Section 4.5 of the Coachella Valley Multi-Species Habitat Conservation Plan (CVMSHCP) Guidelines as follows:*

- 1. Drainage – Proposed Development adjacent to or within a Conservation Area shall incorporate plans to ensure that the quantity and quality of runoff discharged to the adjacent Conservation Area is not altered in an adverse way when compared with existing conditions. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the adjacent Conservation Area.*
- 2. Toxics – Land uses proposed adjacent to or within a Conservation Area that use chemicals or generate byproducts such as manure that are potentially toxic or may adversely affect wildlife and plant species, Habitat, or water quality shall incorporate measures to ensure that application of such chemicals does not result in any discharge to the adjacent Conservation Area.*
- 3. Lighting – For proposed Development adjacent to or within a Conservation Area, lighting shall be shielded and directed toward the developed area. Landscape shielding or other appropriate methods shall be incorporated in project designs to minimize the effects of lighting adjacent to or within the adjacent Conservation Area in accordance with the guidelines to be included in the Implementation Manual.*
- 4. Noise – Proposed Development adjacent to or within a Conservation Area that generates noise in excess of 75 dBA Leq hourly shall incorporate setbacks, berms, or walls, as appropriate, to minimize the effects of noise on the adjacent Conservation Area in accordance with the guidelines to be included in the Implementation Manual.*
- 5. Invasives – Invasive, non-native plant species shall not be incorporated in the landscape for land uses adjacent to or within a Conservation Area. Landscape*

treatments within or adjacent to a Conservation Area shall incorporate native plant materials to the maximum extent Feasible; recommended native species are listed in Table 4-112 [of the CVMSHCP]. The plants listed in Table 4-113 [of the CVMSHCP] shall not be used within or adjacent to a Conservation Area. This list may be amended from time to time through a Minor Amendment with Wildlife Agency Concurrence.

6. *Barriers – Land uses adjacent to or within a Conservation Area shall incorporate barriers in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping in a Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls and/or signage.*
7. *Grading/Land Development – Manufactured slopes associated with site Development shall not extend into adjacent land in a Conservation Area.*

MSWD shall pay required MSHCP fees and restrict all project related impacts to existing ROW and/or other areas outside of the Conservation Areas.

Implementation of the above mitigation measures do not impose any new or additional impacts beyond those already identified for the Project as a whole.

4.5.6 Cumulative Impacts

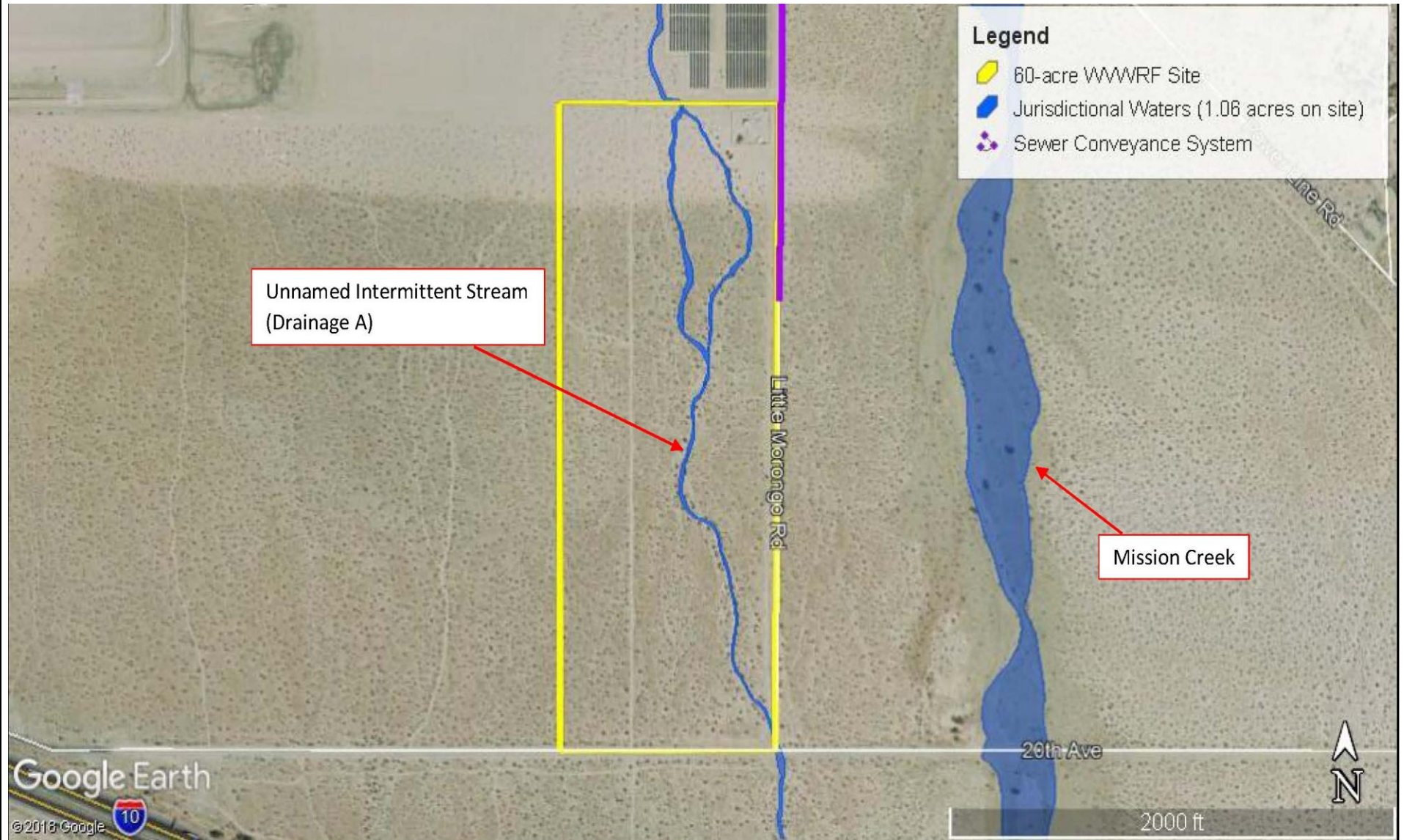
The MSHCP establishes the management of biological resources in Coachella Valley that defines cumulative biological resource values and measures the loss of biology resources that constitutes a cumulative adverse impact. Development of the proposed project will contribute to the change of the general area through developing a site in a generally undeveloped area, which would be somewhat greater than that which presently exists or can occur on the site or in the surrounding vicinity. The proposed Project will not cause adverse cumulative effects related to the reduction of sensitive vegetation communities or degradation of other biology values present in the Coachella Valley. This is because there are no significant biology resources located within the project area and the project can be implemented consistent with the criteria identified in the MSHCP, with mitigation as outlined in the preceding section. Based on compliance with the required mitigation and the overall lack of any habitat to support sensitive species or a substantial wildlife population, the proposed Project will not result in adverse cumulative biology resource impacts that rise to a cumulatively considerable level. Project biology impacts are less than significant.

4.5.7 Unavoidable Significant Adverse Impacts

Due to the lack of significant biological resources within the proposed project site, the Project is not forecast to cause any direct significant unavoidable adverse impact to sensitive biological resources. With mitigation the project has been determined to be consistent with the MSHCP. Thus, based on the lack of significant onsite biological resources and the mitigation that must be implemented to control potential site specific impacts to biological resources, the proposed Project is not forecast to cause significant unavoidable adverse impacts to biological resources. Project biology impacts are less than significant.

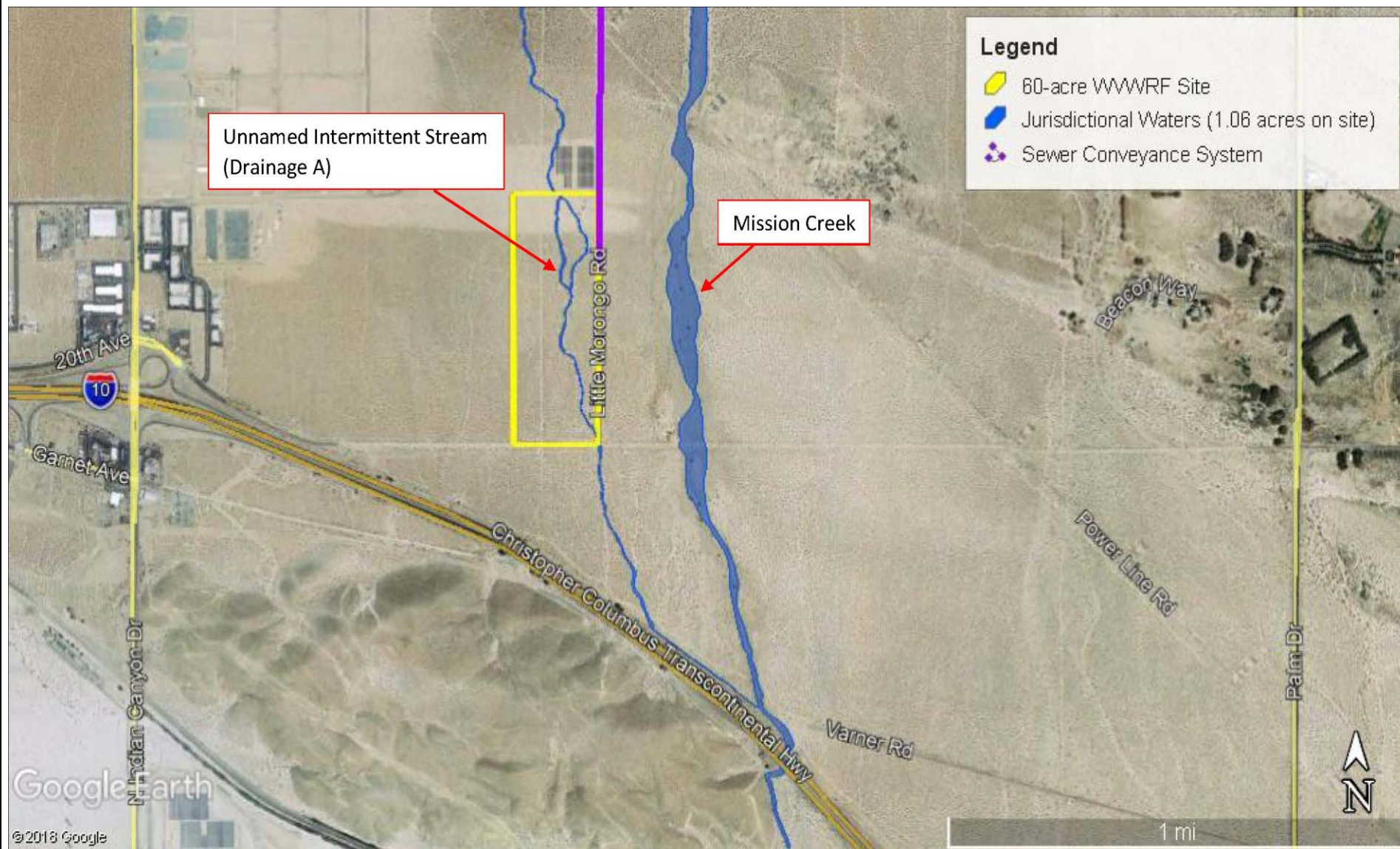
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FIGURE 4.5-1
Jurisdictional Features – WWRF Site



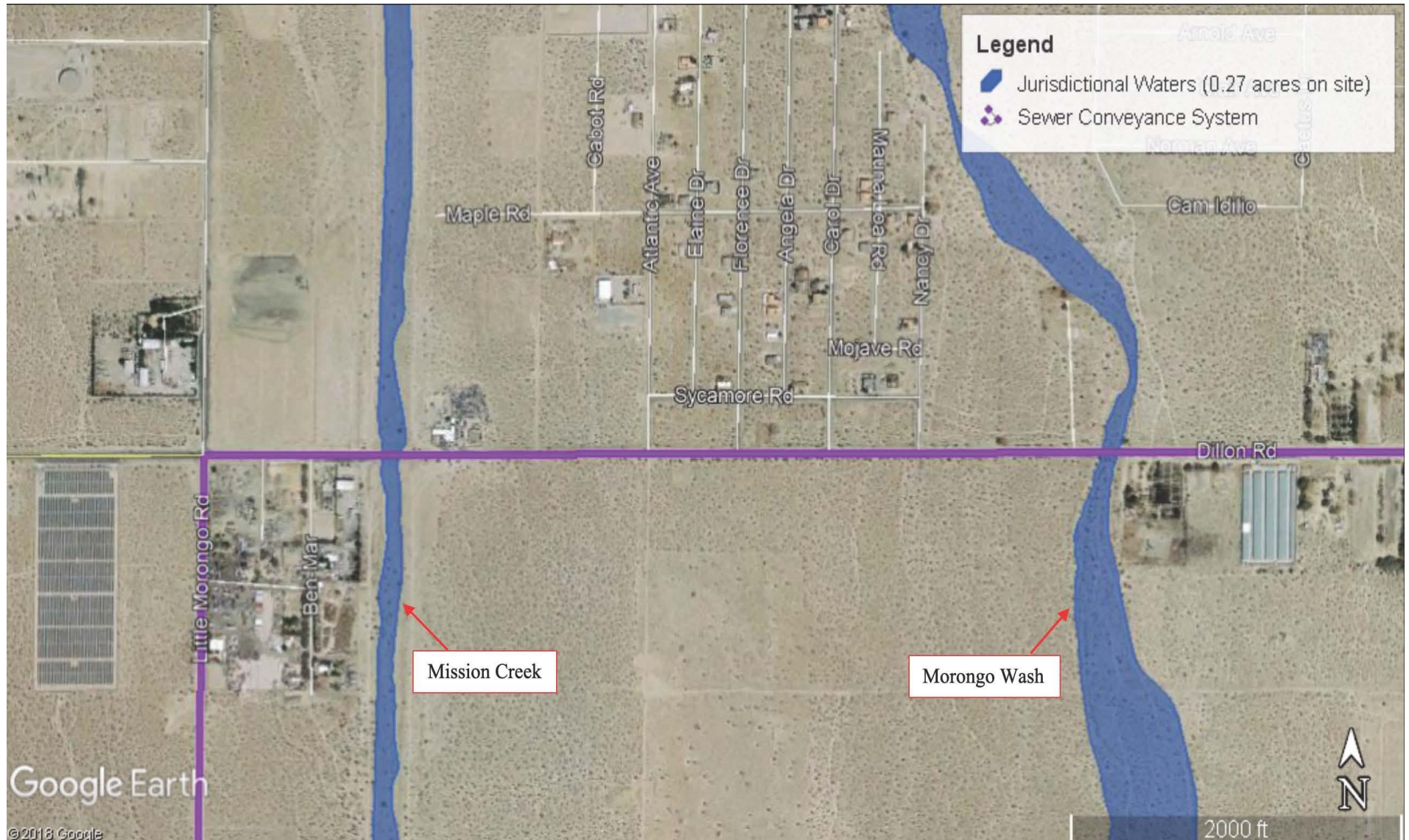
Source: Jacobs "Google Earth"

FIGURE 4.5-2
Jurisdictional Features – WWRF Site



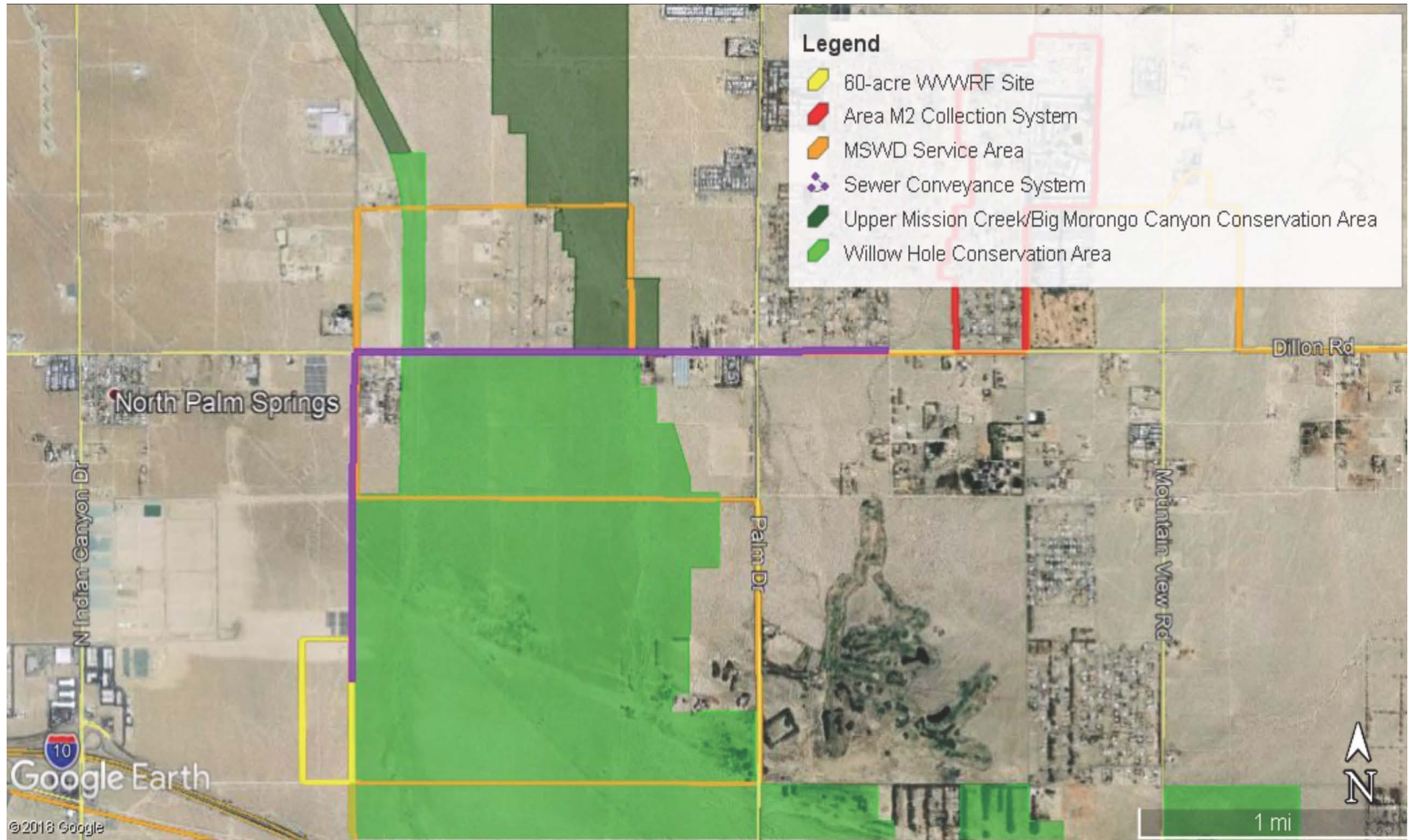
Source: Jacobs "Google Earth"

FIGURE 4.5-3
Conveyance Jurisdictional Features



Source: Jacobs "Google Earth"

FIGURE 4.5-4
CVMSHCP Conservation Areas



Source: Jacobs "Google Earth and CVMSHCP Conservation Area GIS Layer"

4.6 CULTURAL RESOURCES

4.6.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue area of cultural resources from implementation of the West Valley Water Reclamation Program (WVWRP or Program). The following topics address whether the proposed Project would alter or destroy an historic site; cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.6; alter or destroy an archaeological site; cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations, Section 15064.6; disturb any human remains, including those interred outside of formal cemeteries; restrict existing religious or sacred uses within the potential impact area; or directly or indirectly destroy a unique paleontological resource, or site, or unique geologic feature.

These issues will be discussed below as set in the following framework:

- Introduction
- Environmental Setting: Cultural Resources
- Regulatory Framework
- Thresholds of Significance
- Potential Impacts
- Project-Specific Mitigation Measures
- Cumulative Impact
- Unavoidable Adverse Impacts

A Historical/Archaeological Resources Survey Report: West Valley Water Reclamation Program, in and near the City of Desert Hot Springs, Riverside County, California was prepared by CRM TECH for this project, dated February 5, 2019. This document is provided as Appendix 4, Volume 2 to this DEIR. This document was used in the analyses presented in this Subchapter. The findings in this technical study is summarized in the following text with a discussion of paleontological impacts following the cultural resources discussion.

No comments regarding cultural resources issues were raised at the public scoping meeting. The following comment was received regarding cultural resources or issues in response to the Notice of Preparation:

Comment Letter #3 from the Native American Heritage Commission (NAHC) (dated 3/6/19):

- The lead agency must prepare an EIR if there is a potential for a significant effect on the environment, and as such, the lead agency must determine whether there are historical resources within the project footprint
- The lead agency must consult with all Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project; the Comment Letter details the AB 52 consultation process.
- The Comment Letter details the provisions of SB 18 and how a lead agency would comply with SB 18
- The Comment Letter details NAHC recommendations for cultural resource assessments including contacting the appropriate regional archaeological information center for record search, conducting an archaeological inventory survey if required, and

submit report per requirements, contacting the Native American Heritage Commission for a sacred lands file check, as well as suggestions for mitigation to prevent impacts to subsurface resources

Response: The impacts to cultural resources have been assessed in this Subchapter and within the Cultural Resources Report included as Appendix 4, Volume 2, and has been assessed in the context of applicable records search and site review and investigation. Mitigation is identified where applicable.

The following information is abstracted from the CRM TECH report with minor edits to fit the focus of this DEIR.

4.6.2 Environmental Setting

4.6.2.1 Historic and Archaeological Resources Summary

The purpose of the CRM TECH cultural resources study was to provide MSWD with the necessary information and analysis to determine whether the Project would cause substantial adverse changes to any “historical resources,” as defined by CEQA and associated regulations that may exist in or around the project area. In order to identify and evaluate such resources, CRM TECH conducted a historical/archaeological resources records search, pursued historical background research, contacted Native American representatives, and carried out a systematic field survey of the entire project area, including the offsite infrastructure improvement locations. As a result of these research procedures, four historic-period cultural resources were identified as lying within or partially within the project boundaries, as listed below. No prehistoric—i.e., Native American—cultural resources were encountered in or near the project area.

Sites 33-008409, 33-008410, and 33-015035 are lineal infrastructure features of historical origin that extend across the project area, were previously determined not to meet the criteria for listing in the National Register of Historic Places and/or the California Register of Historical Resources, and the present study has uncovered no new information to warrant a re-visit of these determinations. Furthermore, this study finds that Site 33-028574, a small domestic refuse scatter from the 1950s-1960s, does not appear eligible for the California Register. Therefore, none of the sites within or partially within the project area qualify as a “historical resource” under CEQA provisions.

Based on these findings, CRM TECH recommends to the MSWD a conclusion 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.

For more details regarding each of the steps taken by CRM TECH as part of its investigation of the value of cultural resources at the site, please refer to Appendix 4 of Volume 2.

4.6.3 Regulatory Setting

Numerous laws and regulations require federal, State, and local agencies to consider the effects a project may have on cultural resources. These laws and regulations stipulate a process for

compliance, define the responsibilities of the various agencies proposing the action, and prescribe the relationship among other involved agencies (e.g., State Historic Preservation Office and the Advisory Council on Historic Preservation). The National Historic Preservation Act (NHPA) of 1966, as amended; the California Environmental Quality Act (CEQA); and the California Register of Historical Resources, Public Resources Code (PRC) 5024, are the primary federal and State laws governing and affecting preservation of cultural resources of national, State, regional, and local significance.

4.6.3.1 Federal

National Historic Preservation Act

Cultural resources are protected through the NHPA of 1966, as amended (54 United States Code [U.S.C.] 300101 et seq.), and the implementing regulations, Protection of Historic Properties (36 Code of Federal Regulations [CFR] Part 800), the Archaeological and Historic Preservation Act of 1974, and the Archaeological Resources Protection Act of 1979. Prior to implementing an “undertaking” (e.g., issuing a federal permit), the NHPA (54 U.S.C. 306108) requires federal agencies to consider the effects of the undertaking on historic properties and to afford the Advisory Council on Historic Preservation and the State Historic Preservation Officer (SHPO) a reasonable opportunity to comment on any undertaking that would adversely affect properties eligible for listing in the National Register of Historic Places (National Register). Under the NHPA, properties of traditional religious and cultural importance to a Tribe are eligible for inclusion in the NRHP (54 U.S.C. 302706). Also, under the NHPA, a resource is considered significant if it meets the NRHP listing criteria at 36 CFR 60.4.

National Register of Historic Places

The National Register was established by the NHPA of 1966, as “an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation’s historic resources and to indicate what properties should be considered for protection from destruction or impairment” (Code of Federal Regulations [CFR] 36 Section 60.2). The National Register recognizes both historical-period and prehistoric archaeological properties that are significant at the national, state, and local levels. In the context of the project, which does not involve any historical-period structures, the following National Register criteria are given as the basis for evaluating archaeological resources.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria (U.S. Department of the Interior, 1995):

- Are associated with events that have made a significant contribution to the broad patterns of our history;
- Are associated with the lives of persons significant in our past;
- 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
- Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least fifty years old to be eligible for National Register listing (U.S. Department of the Interior, 1995).

In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as “the ability of a property to convey its significance” (U.S. Department of the Interior, 1995). The National Register recognizes seven qualities that, in various combinations, define integrity. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association.

4.6.3.2 State

The State implements the NHPA through its statewide comprehensive cultural resource surveys and preservation programs. The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also maintains the California Historic Resources Inventory. The SHPO is an appointed official who implements historic preservation programs within the State’s jurisdictions.

California Register of Historical Resources

The California Register of Historical Resources (California Register) is “an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change.” (California Public Resources Code § 5024.1[a]). The criteria for eligibility for the California Register are based upon National Register criteria (California Public Resources Code § 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

- To be eligible for the California Register, a prehistoric or historical-period property must be significant at the local, State, and/or federal level under one or more of the following criteria:
- Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally Determined Eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and,
- Those California Points of Historical Interest that have been evaluated by the OHP and

have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (Those properties identified as eligible for listing in the National Register of Historic Places, the California Register, and/or a local jurisdiction register);
- Individual historical resources;
- Historical resources contributing to historic districts; and,
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Historic Landmarks

California Historical Landmarks (CHLs) are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource also must be approved for designation by the County Board of Supervisors (or the city or town council in whose jurisdiction it is located); be recommended by the State Historical Resources Commission; and be officially designated by the Director of California State Parks. The specific standards now in use were first applied in the designation of CHL #770. CHLs #770 and above are automatically listed in the California Register of Historic Resources (CRHR).

To be eligible for designation as a landmark, a resource must meet at least one of the following criteria:

- It is the first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California);
- It is associated with an individual or group having a profound influence on the history of California; or
- It is a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest (PHI) are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. PHI designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historic resource may be designated as both a landmark and a point. If a point is later granted status as a landmark, the point designation will be retired. In practice, the point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance.

To be eligible for designation as a PHI, a resource must meet at least one of the following criteria:

- It is the first, last, only, or most significant of its type within the local geographic region (city or county);
- It is associated with an individual or group having a profound influence on the history of the local area; or
- It is a prototype of, or an outstanding example of, a period, style, architectural movement

or construction or is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

California Environmental Quality Act

Under CEQA (Public Resources Code [PRC] Section 21084.1), a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. State CEQA Guidelines Section 15064.6 defines a historical resource as: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR; (2) a resource included in a local register of historical resources, as defined in Public Resources Code (PRC) Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

As described by PRC Section 21084.1 and Section 15064.6 of the State CEQA Guidelines, should a project cause a substantial adverse change (defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired) in the significance of an historical resource, the lead agency must identify potentially feasible measures to mitigate these effects (State CEQA Guidelines Sections 15064.6(b)(1) and 15064.6(b)(4)).

Archaeological resources are defined in CEQA Section 21083.2, which states that a "unique" archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Unique archaeological resources as defined in Section 21083.2 may require reasonable efforts to preserve resources in place (Section 21083.1(a)). If preservation in place is not feasible, mitigation measures shall be required. Additionally, the State CEQA Guidelines state that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (State CEQA Guidelines Section 15064.6(c)(4)).

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 requires in the event human remains are discovered that all ground disturbances must cease and the County Coroner must be contacted to determine the nature of the remains. In the event the remains are determined to be Native American in origin by the Coroner, the Coroner is required to contact the Native American Heritage Commission (NAHC) within 24 hours to relinquish jurisdiction.

California Public Resources Code Section 5097.98

Section 5097.98, as amended by Assembly Bill 2641, provides procedures in the event human remains of Native American origin are discovered during project implementation. Section 5097.98 requires that no further disturbances occur in the immediate vicinity of the discovery, that the discovery is adequately protected according to generally accepted cultural and archaeological standards, and that further activities take into account the possibility of multiple burials. Section 5097.98 further requires the NAHC, upon notification by a County Coroner, designate and notify a Most Likely Descendant (MLD) regarding the discovery of Native American human remains. Once the MLD has been granted access to the site by the landowner and inspected the discovery, the MLD then has 48 hours to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods.

In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the land owner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

Paleontological Resources

Section 5097.5 of the PRC specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, the California Penal Code Section 622.5 sets the penalties for the damage or removal of paleontological resources.

4.6.4 Thresholds of Significance

4.6.4.1 Historic and Archaeological Resources

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 §15064.6(a)(1)-(3)).

Regarding the proper criteria of historical significance, CEQA guidelines mandate that "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 §15064.6(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))

The thresholds analyzed in this section are derived from Appendix G of the CEQA Guidelines, and are used to determine the level of potential effect. The significance determination is based on the recommended criteria set forth in Section 15064.6 of the CEQA Guidelines. For analysis purposes, development of the WVWRP would have a significant effect on cultural resources if it is determined that the project would:

1. Cause a substantial adverse change in the significance of a historical resource as defined in 15064.6.
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.6.
3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
4. Disturb any human remains, including those interred outside of formal cemeteries.

4.6.5 Potential Impacts

The following issues from the IS Form will be addressed for potential significance of cultural resource effects:

1. Would the Project cause a substantial adverse change in the significance of a historical resource as defined in 15064.6?

According to the findings in the Cultural Resources Study (Appendix 4 of Volume 2), no historic period resources were identified within the project footprint based on the records check and field survey. As stated above, three historic-period linear sites, designated 33-008409, 33-008410, and 33-015305 in the California Historical Resources Inventory, were previously recorded as lying partially within the project area. During the field survey, the presence of these sites across the project area was confirmed. In addition, a previously unknown refuse scatter of late historical origin was recorded in the project area and subsequently designated Site 33-028574.

A few of the streets in Area M2 also date to the 1950s, but their current configuration and appearance reflect the results of upgrading and maintenance in more recent times, and none of them demonstrates any distinctively historical characteristics. Therefore, Sites 33-008409, 33-008410, 33-015305, and 33-028574 constitute the only cultural resources in existence within the project boundaries.

Site 33-008409 (Palm Drive)

Site 33-008409 represents the 3.5-mile segment of Palm Drive extending north from Dillon Road to Mission Lake Boulevard (historically 16th Street). This segment of Palm Drive was once "Main Street" of L.W. Coffee's 1930s townsite of Desert Hot Springs, while the segment south of Dillon Road was built in the 1960s. The site was originally recorded in 1998 as a "two to four lane asphalt road, built in the 1930s, in heavily altered condition" (Brock 1998a:1). Since then, much of this local thoroughfare has been further widened and re-configured.

The proposed sewer main alignment crosses the southern end of Site 33-008409 along Dillon Road. At that location, Palm Drive was significantly widened between 1996 and 2002, and now consists of four regular traffic lanes plus left-turn and right-turn lanes at the intersection, with curbs and partial sidewalks on both sides. As such, it is essentially modern in appearance and no longer retains the original characteristics from the early days of Desert Hot Springs, or even from 1998 when the site was first recorded.

Site 33-008010 (Dillon Road)

Site 33-008010 was recorded in 1998 as a short segment of Dillon Road at the intersection with Palm Drive but was updated in 2015 to include the entire 31.2-mile length of Dillon Road from Indio to Desert Hot Springs. Built in the early 1930s by the Metropolitan Water District of Southern California (MWD) as the main construction access road for the Colorado River Aqueduct project, Dillon Road was originally graded to an overall width of 30 feet and paved with an oil-treated mixture known as “Oil Road Mix” to the width of 20 feet. After the completion of the aqueduct, the MWD transferred the road to the County of Riverside in 1938 to be used as a public highway.

Of the total length of three miles for the sewer main alignment, two miles lie within the Dillon Road right-of-way, extending between its intersections with Avenida Manzana and Little Morongo Road. At the intersection of Palm Drive, Dillon Road was also greatly widened between 1996 and 2002 and is now flanked by curbs and sidewalks (, but for most of the two-mile length it remains a two-lane rural highway with soft shoulders. Still, its 36-foot-wide modern asphalt pavement bears little resemblance to the 20-foot-wide “Oil Road Mix” noted in the 1930s.

Site 33-015305 (Hayfield-Chino 220kV Transmission Line)

Site 33-015305 consists of a 126.75-mile-long 220kV power transmission line built in 1945-1946 by Southern California Edison from the MWD’s Hayfield Pumping Plant near Desert Center to a substation in Chino. Like Site 33-008010, it was first recorded near the current project location in 1998 and later updated several times to include the entire length of the transmission line. The 1998 site record describes the physical character of the transmission line as “a three phase AC, single circuit line on steel lattice towers. However, the description evidently does not reflect the original configuration, since the power line was reported to have been mostly removed and rebuilt in the 1970s.

Still in use today by Southern California Edison, the Hayfield-Chino 220kV Transmission Line crosses the project area on Little Morongo Road between Dillon Road and the West Valley Water Reclamation Facility (WVWRF) site. The only features of the site located in the project area are the wires passing overhead, and none of the steel lattice towers stands within or immediately adjacent to the project boundaries. As such, the site in fact is not present within the vertical extent of the project’s area of potential impacts.

Site 33-028574 (Refuse Scatter)

Recorded during the field survey for this study, Site 33-028574 consists of a small refuse scatter located south of the existing well within the boundaries of the WVWRF site. The site measures approximately 125 feet (east-west) by 70 feet (north-south), with the main artifact concentration measuring approximately 35 feet by 20 feet. Artifacts noted at the site include 43 metal cans, a complete glass jar with a circa 1950s-1960s Owens-Illinois marker on the base, and a large number of glass fragments. Among the cans are 35 sanitary and beverage cans, 5 aluminum-top beverage cans, 1 hole-in-top can, 1 spice can, and 1 five-gallon gasoline can. Of these, 31 cans are found within the concentration, and the other 12 cans, including the gasoline can, are scattered across the rest of the site.

All three of the linear sites have been evaluated previously under the criteria for listing in the National Register of Historic Places and/or the California Register of Historical Resources, and all of them have been found not to be eligible due to the lack of any specific aspect of significance and the loss of historic integrity.

The present study has not uncovered any new information to suggest an important historic association, a significant merit in design and construction, or a demonstrated potential for archaeological data for any of these sites. Furthermore, as working components of the contemporary infrastructure, all three of these linear features are essentially modern in appearance today, and none of them retains any distinctively historical character to relate to their period of origin, namely the 1930s-1930s era. Therefore, the data outlined in the Cultural Resources Study concurs to the previous evaluations on Sites 33-008409, 33-008410, and 33-015035.

The final site in the project area, 33-028574, consists of a small domestic refuse scatter from the late historic period, specifically the 1950s-1960s. Surface scatters of common household refuse represent the most proliferate type of historic-period archaeological remains to be found in the southern California desert, and they typically do not have any documented association, let alone a close association, with any person or event of recognized significance in national, state, or local history. In the absence of an exceptional quantity or quality of the artifacts, these sites do not hold the potential for any important archaeological data, and what little data potential they may have is largely exhausted through their recordation into the California Historical Resources Inventory. Site 33-028574 fits the general pattern for such refuse scatter sites, and does not exhibit any special qualities to meet the criteria for listing in the California Register of Historical Resources. As such, no adverse impact to historic period resources will result from implementing the proposed WVWRP; however, mitigation has been included to ensure that, if buried cultural materials are encountered during any earth-moving operations associated with the project, all work in that area will be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

2. Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.6.?

Please refer to the discussion under item 1 above. According to the findings in the cultural resources study (Appendix 4 of Volume 2), it is not anticipated that the proposed project would cause a substantial adverse change in an archaeological resource. As stated above, the cultural resources study has not uncovered any new information to suggest an important historic association, a significant merit in design and construction, or a demonstrated potential for archaeological data for any of these sites. However, archaeological resources are often found below ground, so mitigation shall be implemented to protect any unknown archaeological features that might be unearthed during ground breaking activities.

3. Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Please refer to the discussion under item 1 and 2 above. The potential for discovering paleontological resources during development of the Project is considered unlikely based on the fact that the much of the project footprint 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 discovered as a result of ground disturbance activities, mitigation shall be implemented and with incorporation of this contingency mitigation, the potential for impact to paleontological resources will be reduces to a less than significant level.

4. Would the Project disturb any human remains, including those interred outside of formal cemeteries?

Based on historic disturbance of the project footprint, the potential for encountering human remains is very low. If human remains are accidentally exposed during site grading, Section 7050.5 of the California Health and Safety Code requires a contractor to immediately stop work in the vicinity of the discovery and notify the County Coroner. The Coroner must then determine whether the remains are human and if such remains are human, the Coroner must determine whether the remains are or appear to be of a Native American. If deemed potential Native American remains, the Coroner contacts the Native American Heritage Commission to identify the most likely affect tribe and to initiate property recovery of such remains. Since this process is mandatory, no additional mitigation is required to ensure that the impacts to human remains will be less than significant.

4.6.6 Avoidance, Minimization and Mitigation Measures

The mitigation measures, listed below, will be implemented during period of ground disturbance over the life of the proposed project, to reduce any potential cultural resource impacts from the proposed project to a less than significant level through avoidance or monitoring and management of any accidentally exposed cultural resource materials.

- 4.6-1** *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 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.*
- 4.6-2** *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 District'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.*

4.6.7 Cumulative Impacts

Based on the information contained in Appendix 4 of Volume 2 prepared by CRM TECH, implementation of the proposed Project can proceed without causing any unavoidable significant adverse impacts to cultural resources. Because the implementation of the proposed Project is not forecast to cause any direct, significant adverse impact to any significant cultural resources with implementation of identified mitigation measures, the proposed Project has no potential to make a cumulatively considerable contribution to cultural resource impacts in the project area or Riverside County in general. Cultural resources are inherently site specific, and unless such resources contribute significantly to regional history or Native American values, they do not contribute to cumulative significant impacts. The cultural resources on the project site do not contain any significant cultural value that could be added to impacts from other projects in a manner that could be considered cumulatively considerable. Therefore, the project's cumulative cultural resource impacts are less than significant.

4.6.8 Unavoidable Significant Adverse Impacts

Based on the information presented above and contained in Appendix 4 of Volume 2, all potential cultural resource impacts would be limited and can be mitigated to a less than significant impact level. As a result, there will not be any unavoidable project specific or cumulative adverse impacts to cultural resources from implementing the Project as proposed. The project cultural resource impacts are less than significant.

4.7 GEOLOGY AND SOILS

4.7.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue area of geology and soils resources from implementation of the proposed West Valley Water Reclamation Program (WVWRP or Program). The following section will discuss the geology of the project site including: Faults, Seismic-Related Ground Failure, Liquefaction, and Landslides. Additionally, the following section will discuss the soils which underlie the project site including the stability of the soils, loss of topsoil, and the potential for expansive soils, etc. These issues will be discussed below as set in the following framework:

- Environmental Setting: Geology and Soils Resources
- Thresholds of Significance
- Potential Impacts
- Mitigation Measures
- Cumulative Impact
- Unavoidable Significant Adverse Impacts

The following references were used in prepared this Subchapter of the DEIR:

- AECOM, *Technical Memorandum Geotechnical Investigation Prepared for the MSWD Regional Wastewater Treatment Plant Design Project*, October 24, 2018
- City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000

The Preliminary Geotechnical Investigation Report is the primary document used to support the analysis below. No comment regarding geology or soils issues were raised at the public scoping meeting, nor were any comments received regarding geology and soils resources or issues in response to the Notice of Preparation. Therefore, the issues identified in Appendix G of the CEQA Handbook, and described in the Notice of Preparation (NOP), are the focus of the following evaluation of geology and soils resources.

4.7.2 Environmental Setting

The Preliminary Geotechnical Investigation Report is provided as Appendix 5 in Volume 2, Technical Appendices. The following information is abstracted from the above referenced technical studies, which are provided in Volume 2, Technical Appendices. This information regarding the baseline geology and soil conditions at the project site reflect the existing site geology and soil constraints and resources that occur at the site and surrounding vicinity.

4.7.2.1 Regional Geologic Setting, Local Geology and Project Earth Materials

Regional Geologic Setting

According to the City of Desert Hot Springs General Plan, the site is located at the northwestern extreme of the Salton Trough, which is the landward extension of the East Pacific Rise spreading right and transform fault system. This spreading ridge is creating new crust and is responsible for separating Baja California from mainland Mexico and creating the Gulf of California and the Imperial and Coachella Valleys. This spreading action is also responsible for moving the Pacific Plate to the northwest relative to the North American Plate at the rate of

about 50 mm per year. Movement along these two tectonic plates is responsible for most of the earthquakes that occur in Southern California, with about 70 percent of this movement being accommodated by the San Andreas Fault Zone.

The surrounding mountains are typically composed of crystalline basement rock. The material filling the basin is predominantly Quaternary aged alluvial fan, fluvial and lacustrine deposits. Early Quaternary/late Tertiary sedimentary deposits crop out forming small hills within the valley as geomorphic expressions of the San Andreas Fault (CGS, 1965). Figure 4.7-1 shows a regional geologic map of our project site. Local fault strands from the San Andreas Fault system are also shown.

The location of the West Valley Water Reclamation Facility (WVWRF) and off-site spreading basins lie within the northwestern end of the Coachella Valley. The site is on a gentle south sloping alluvial fan surface within the general influence of the Mission Creek Drainage. A primary wash of the Mission Creek drainage system lies approximately 0.15 miles to the east of the site. The subsurface deposits at the site are derived from Late Holocene alluvial wash deposits (Qw) and Holocene to Late Pleistocene alluvial valley deposits (Qya).

Local Geologic Setting

Subsurface conditions were examined based on the recent AECOM subsurface investigation and a review of boring logs from previous investigations performed at MSWD Well 33. The alluvial soils are typically medium dense to very dense silty sands and poorly graded sands with silt and gravel.

At the WVWRF location, two layers of alluvium can be distinguished based on the subsurface material properties. The upper alluvium layer is composed predominantly of medium dense to dense poorly graded sand with silt and loose to dense well-graded sand with silt. A thin layer of medium dense sandy silt was observed at one of the boring locations. The lower alluvium layer is denser, has slightly lower moisture content, and increased fines. The lower alluvium layer is composed predominantly of medium dense to very dense silty sand, poorly-graded sand with silt, and well-graded sand with silt. The uppermost 3 feet of alluvial soils are found to be very loose, and will require removal during excavation.

4.7.2.2 Faults

The WVWRF site lies approximately 400 feet southwest of an Alquist-Priolo (AP) Fault Zone pertaining to the San Bernardino Mountain Section of the South Branch of the San Andreas. The fault is considered active within the Holocene time period. The mapped fault trace itself lies as near as approximately 1,000 feet northeast of the site of the proposed WVWRF. The North Branch of the San Andreas Fault lies 3.5 miles to the northeast of the site and is also an AP Zoned Fault. The Garnet Hill Fault is considered a potentially active strand of the San Andreas Fault and lies approximately 0.65 miles to the southwest of the site. Recent publications do not indicate mapped faults crossing the site. Potential for fault rupture hazard at the site is considered low to moderate.

4.7.2.3 Landslides

The topography at the site is relatively flat with very gentle slopes. Due to the relatively flat lying topographic character of the site, potential for slope failure is considered low. For the planned discharge basins, slopes 2:1 (Horizontal: Vertical) or flatter are considered grossly stable. At this

time, detailed design of the planned basins is not available for slope stability analysis. Once, the design is available, specific slope stability analysis can be performed and recommendations can be refined. The WVWRF site is located on a site that slopes slightly from the high point in the north to the lower point in the south; however, the slope is minimal and would not be susceptible to landslides.

4.7.2.4 Secondary Seismic Hazards

Collapse Potential: At their dry, natural state, soils with collapse potential possess stiffness and high apparent shear strength; but upon wetting, they could exhibit a significant decrease in volume (collapsing, hydro-consolidation, hydro-compression). Such soils, which exhibit this phenomenon at fairly low stresses, are called collapsible soils. Collapsible soils are generally characterized by their loose structure of bulky shaped grains, often in the silt to fine sand size with a small amount of clay. There may be only slight cementing agents such as calcium carbonate, salts and dried clay, with combinations being common. Geologic materials with collapse potential consist of Aeolian, fine alluvial fan deposits, mud flows, flash flood deposits, loosely place fills, and some types of residual soils. Based on the data gathered in the Geotechnical Investigation, the site has a slight collapse potential.

Tsunami: Tsunamis are large waves in the ocean typically caused by submarine earth processes such as earthquakes, coastal landslides or volcanic eruptions. Tsunamis can travel thousands of miles across the ocean and present a serious hazard to coastal developments. The degree of this hazard strongly depends on the size and type of the source of the tsunami, the exposure of the project site to the open ocean and the direction from which the tsunami is coming from. The site has no coastal exposure and, therefore low potential for tsunami hazard.

Flooding: Since no enclosed bodies of water lie adjacent to or up gradient of the site, the likelihood for induced flooding due to a dam failure or a seiche overcoming the dam's freeboard is considered nonexistent.

4.7.2.5 Ground Motions

Structures are required to be designed and constructed to resist the effects of seismic ground motions as provided in the 2016 California Building Code Section 1613. The design is dependent on the site class, occupancy category I, II, III, or IV, mapped spectral accelerations for short periods (Ss), and mapped spectral acceleration for a 1-second period (S1).

In order for structural design to comply with the 2016 CBC, the USGS "US Seismic Design Maps" online tool was used to compile spectral accelerations for the subject property based on data and maps jointly compiled by the United States Geological Survey (USGS) and the California Geological Survey (CGS). The subsurface soil at the WVWRF site corresponds to the International Building Code Site Class Type D based on the average Vs30 of 270 meters per second obtained for the site (Vs30 is the time-averaged shear-wave velocity (Vs) in the upper 30 meters). International Building Code Site Class Type D corresponds to buildings and structures in areas expected to experience severe and destructive ground shaking, but are not located close to a major fault. Seismic Design Parameters are discussed further in the Geotechnical Investigation. The design parameters will minimize the destructive impacts from ground shaking.

4.7.2.6 Liquefaction and Lateral Spreading

Liquefaction is a phenomenon in which loose to medium dense, saturated, granular materials undergo matrix rearrangement, develop high pore water pressure, and lose shear strength because of cyclic ground vibrations induced by earthquakes. This rearrangement and strength loss is followed by a reduction in bulk volume of the liquefied soils. The effects of liquefaction can include the loss of bearing capacity below foundations, settlement in level ground, large horizontal deformations of relatively level ground with an unconfined vertical face (referred to as lateral spreading) and instability in area of sloping ground (also known as flow sliding). Liquefaction is generally considered to occur only within about 50 feet of the ground surface. Due to the lack of presence of groundwater in the upper 50-feet of subsurface, the potential for liquefaction at the site is considered low.

4.7.2.7 Expansive Soil

The on-site material predominantly consists of granular soils. Expansive soils are typically fine grained. Potential for expansive soils should be considered low.

4.7.2.8 Groundwater

The project site lies within the Garnet Hills Sub-basin. Groundwater data from 2009 suggests groundwater elevations in the project vicinity are between 500 and 600 feet above mean sea-level (MSL). These elevations correspond to a depth to water between 130 to 230 feet below ground surface (bgs). Groundwater level measurements from the production well on the north end of the project site shows levels deeper than 150 feet bgs. Groundwater was not encountered during the recent borings performed for the subject investigation, to the maximum depth explored of about 50.3 feet bgs, at approximately 709 feet MSL elevation.

4.7.2.9 Corrosivity

Corrosivity testing was completed as part of the Geotechnical Investigation to assess the corrosion potential of the soils. The corrosion tests were completed in accordance with Caltrans test methods and United States Environmental Protection Agency (USEPA) test methods. Based on the results of the corrosivity testing performed by AECOM and recorded in the Geotechnical Investigation, the site is interpreted to be non-corrosive in accordance with the Caltrans corrosion guidelines.

4.7.3 Regulatory Setting

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act is considered the most important piece of legislation related to this Element and is found in Public Resources Code Sections 2621 et. seq. The location of these study zones must be disclosed to the general public through the use of maps and other appropriate materials (Title 14, California Administrative Code Section 3603 (b)).

The Alquist-Priolo Earthquake Fault Zoning Act (previously known as the Alquist-Priolo Special Studies Zone Act adopted in 1972), was developed with the primary purpose of mitigating the

hazards associated with fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. Earthquake fault zones, which are sufficiently active and well defined, have been designated on maps prepared by the State Division of Mines and Geology. Study area boundaries range from 200 to 500 feet on either side of an active fault, depending on whether it is a minor or major fault. The Act defines active faults as those that have evidenced movement during the past 11,000 years (Holocene epoch).

The City is also required by the Act to withhold the issuance of development permits within an active fault zone until geologic investigations are conducted that demonstrate that sites are not threatened by surface displacement from future faulting. According to the City of Desert Hot Springs General Plan, the Coachella Valley Segment of the San Andreas Fault Zone (also known as the Mission Creek Fault) passes through the southwestern quadrant of the urban core of the City. It extends through the SOI from the Desert Crest Mobile Home Park in the southeast, and through the Mission Lakes Country Club development in the north-central portion of the City planning area. The Banning Fault is located in the City's southern SOI and passes very near the extreme southwest corner of the city limits. These faults and others with the potential to cause damage in the City are discussed further below.

Local

General Plan Policies

The following are applicable policies from the City of Desert Hot Springs General Plan related to geology and soils:

Geotechnical Element Goal, Policies and Programs: Goal 1

Maximized protection from and minimize vulnerability to the general health safety and welfare of the community from the effects of geotechnical hazards that may impact lives, property and economic well being of the community.

Geotechnical Element Goal, Policies and Programs: Program 2 B

The City shall establish a cooperative arrangement with the County Geologist, the State Geologist, or a contract geological engineer to review and determine the adequacy of geotechnical and fault hazard studies prepared within the City.

Geotechnical Element Goal, Policies and Programs: Policy 5

The City shall cooperate and coordinate with public and quasi-public agencies to assure the continued functionality of major utility services in the event of a major earthquake.

Geotechnical Element Goal, Policies and Programs: Program 5 A

City staff shall contact and establish working relationships and strategies with the Public Utilities Commission, Southern California Edison, Southern California Gas, Mission Springs and Coachella Valley Water Districts and other appropriate agencies to strengthen or relocate facilities, and take other appropriate measures to safeguard water, electricity, natural gas and other transmission and distribution systems.

Geotechnical Element Goal, Policies and Programs: Program 6 A

Information shall be collected from a wide variety of sources, including public agencies and utility companies, providing instruction on earthquake preparedness. Said materials shall be made available to residents and businesses throughout the City.

Geotechnical Element Goal, Policies and Programs: Program 6 B

The City shall confer and cooperate with local utility companies, Mission Springs and Coachella Valley Water Districts, Palm Springs Unified School District, police and fire departments, and others to coordinate education of the general public regarding appropriate action before, during and after earthquakes and other disasters.

Geotechnical Element Goal, Policies and Programs: Policy 7

In areas of high seismicity, the City shall encourage the location of septic tank leach fields, seepage pits, drainage facilities and heavily irrigated areas away from foundations and other structural supports to minimize the creation of a localized collapse of soils and associated hazards.

Geotechnical Element Goal, Policies and Programs: Program 7 A

Where soil conditions warrant, development applications shall include plans indicating the location of leach fields, seepage pits, drainage facilities and water-dependent landscaping to be reviewed by City staff to identify potential for ground saturation; City may require their location away from foundation and other structural supports.

Geotechnical Element Goal, Policies and Programs: Policy 8

Development in areas identified as being subject to a rock fall or landslide hazard shall be avoided.

Geotechnical Element Goal, Policies and Programs: Program 8 A

The City shall make available copies of the General Plan Landslide/Landslide Susceptibility map and discourage development within areas so designated, or require detailed geotechnical analysis and require mitigation measures that reduce associated hazards to insignificant levels.

4.7.4 Thresholds of Significance

The City of Desert Hot Springs utilizes Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42.)
 - ii. Strong seismic ground shaking.
 - iii. Seismic-related ground failure, including liquefaction.
 - iv. Landslides.
2. Result in substantial soil erosion or the loss of topsoil.
3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
4. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial risks to life or property.

5. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

4.7.5 Potential Impacts

- 1i. **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?**

As stated above under “Environmental Setting” the proposed Project is located within an area of California known to contain a number of active and potentially active faults. Review of the available references—including the USGS 2008 Interactive Deaggregation, Caltrans ARS online, and USGS Earthquake Hazard Programs—and the onsite geotechnical investigation, found that no active faults are known to traverse the WVVRF site and the site is not located within an Alquist-Priolo Earthquake Fault Zone, which are zones that have been established by the State of California to restrict the construction of new habitable structures across identifiable traces of known active faults. However, a portion of the conveyance pipeline alignment would traverse through the Banning Fault Alquist Priolo Earthquake Fault Zone, and as such would cross through an active fault. 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. Though the Geotechnical Evaluation concluded that the likelihood of surface fault rupture on the WVVRF is low, and MSWD has a Sewer System Management Plan (SSMP) in place to mitigate impacts of sewage spills/overflows, which MSWD will continue to comply with for the newly constructed facilities. The document can be located at the following link: <https://www.mswd.org/documents/SSMP%20Main%20Document.pdf>

Compliance with the SSMP is considered adequate to mitigation potential impacts as a result of ground rupture.

- 1ii. **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?**

According to the Preliminary Geotechnical Investigation Report, the project site is located within an area of California known to contain a number of active and potentially active faults. Due to the proximity of the site to nearby active faults, strong ground shaking is expected to occur at the WVVRF site and throughout the conveyance pipeline alignment during the life of the project. The possibility of ground shaking at the site may be considered similar to the southern California region as a whole. As stated previously, the WVVRF site is not located within an active fault zone or within an Alquist-Priolo Earthquake Fault Zone; though the sewage conveyance pipeline would traverse through an Alquist-Priolo Earthquake Fault Zone that crosses Little Morongo Road about 400 feet north of the WVVRF site. 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.

The seismic design coefficients were determined by a combination of the site class, mapped spectral accelerations, and occupancy category. The seismic design coefficients shall be implemented during design of the proposed WVVRF, as presented in Table 4.7-1, *Seismic Design Parameters*, below. Structures shall be designed in accordance with seismic design

criteria developed by the Structural Engineers Association of California. Mitigation to ensure that these design standards are enforced is provided below (Mitigation Measure 4.7-1).

**Table 4.7-1
SEISMIC DESIGN PARAMETERS CBC (2016)**

| PARAMETER | FACTOR | VALUE |
|---|------------|--------|
| Mapped Spectral Response Acceleration (0.2 sec Period) | S_s | 3.029g |
| Mapped Spectral Response Acceleration (1.0 sec Period) | S_1 | 1.222g |
| Site Class | Site Class | D |
| Site Coefficient | F_a | 1.0 |
| Site Coefficient | F_v | 1.5 |
| Maximum Considered Earthquake Spectral Response Acceleration (0.2 sec Period) | S_{ms} | 3.029g |
| Maximum Considered Earthquake Spectral Response Acceleration (1.0 sec Period) | S_{m1} | 1.833g |
| Design Spectral Response Acceleration (0.2 sec Period) | S_{ds} | 2.020g |
| Design Spectral Response Acceleration (1.0 sec Period) | S_{d1} | 1.222g |
| Seismic Design Category: D | | |

Conformance to the criteria for seismic design does not constitute any kind of guarantee or assurance that significant structural damage will not occur in the event of a significant earthquake that may affect the site. The primary goal of seismic design is to protect life, not to eliminate all damage, since structurally protective seismic design may be economically prohibitive. Actual ground shaking intensities at the site may be substantially higher or lower based on complex variables such as the near source directivity effects, depth and consistency of earth materials, topography, geologic structure, direction of fault rupture, and seismic wave reflection, refraction, and attenuation rates. 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. This is a standard requirement, and not considered unique mitigation under CEQA. 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. Because the above geotechnical design measures (outlined on pages 5-0 to 5-6 of the 2018 Geotechnical Report) are mandatory and standard conditions of approval, these measures are not considered unique mitigation under CEQA; however, implementation of Mitigation Measure 4.7-2 ensures that the Geotechnical recommendations are enforced as requirements for the proposed Project.

1iii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

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. According to the 2018 Geotechnical Investigation Report the proposed WWRF structures will be located on a site

characterized by two layers of alluvium on the subsurface material properties. The upper alluvium layer is composed predominantly of medium dense to dense poorly graded sand with silt and loose to dense well-graded sand with silt. A thin layer of medium dense sandy silt was observed at one of the boring locations. The lower alluvium layer is denser, has slightly lower moisture content, and increased fines. The lower alluvium layer is composed predominantly of medium dense to very dense silty sand, poorly-graded sand with silt, and well-graded sand with silt. The uppermost 3 feet of alluvial soils are found to be very loose, and will require removal during excavation.

As such, the potential for earthquake induced liquefaction and lateral spreading beneath the proposed structures is considered very low to remote due to the recommended compacted fill, relatively low groundwater level—anticipated to be between 130 to 230 feet below ground surface (no groundwater was encountered during the geotechnical boring activities, which reached a maximum of between 30.5 feet to 51.5 feet bgs). Due to the lack of presence of groundwater in the upper 50-feet of the subsurface, the potential for liquefaction at the site is considered low.

The proposed sewage conveyance pipeline will be located within existing roadways and thoroughways. 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.

Based on the information contained in the 2018 Geotechnical Investigation Report, seismic related ground failure is not anticipated to occur on site. Furthermore, with implementation of the detailed site design requirements identified in the Geotechnical Evaluation, the potential for seismic-related ground failure impacts are considered less than significant. The site requirements are outlined in the preceding sections. The seismic design coefficients shall be implemented during design of the proposed WWRF, as presented above in Table 4.7-1, *Seismic Design Parameters*. Mitigation to ensure that these design standards are enforced is provided below (Mitigation Measure 4.7-1).

Further, the overall design standards are outlined on pages 5-1 to 5-13 of the 2018 Geotechnical Report, and although a standard requirement, and not considered unique mitigation under CEQA, these design standards are considered a requirement through the implementation of Mitigation Measure 4.7-2, which ensures that the Geotechnical recommendations are enforced as requirements for the proposed Project. The reader is referenced to the Geotechnical Evaluation in Appendix 5 of Volume 2, Technical Appendices for the detailed site design requirements. The design requirements ensure that all hazards, ranging from seismic ground shaking to liquefaction will not cause a significant impact to future persons working within and around the proposed new structures or to other infrastructure required to support the development of the Program.

1iv. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

According to the City of Desert Hot Springs General Plan, seismically induced landslides and rock falls can be expected to occur on both the northern and western portions of the General Plan study area, where there is a high potential for seismically-induced rock falls and landslides to occur in Desert Hot Springs and its Sphere-of-Influence (SOI). The proposed WWRF

footprint is located in the southern portion of the City of SOI—this includes the proposed WVWRF and the proposed sewage conveyance pipeline alignment. Though the land slopes slightly from north to south, there are no mountains or features that would be susceptible to landslide in the event of a seismic event. Furthermore, the 2018 Geotechnical Investigation Report indicates that, due to the relatively flat lying topographic character of the site, potential for slope failure is considered low. Additionally, pipelines are not 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.

Based on this information, the Project site will not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of Project implementation, and potentially result in on- or off-site landslide. The Project will be required to comply with the seismic recommendations, and overall design standards are outlined on pages 5-1 to 5-13 of the 2018 Geotechnical Report, and although a standard requirement, and not considered unique mitigation under CEQA, these design standards are considered a requirement through the implementation of Mitigation Measure 4.7-2, which ensures that the Geotechnical recommendations are enforced as requirements for the proposed Project. The reader is referenced to the Geotechnical Evaluation in Appendix 5 of Volume 2, Technical Appendices for the detailed site design requirements. The design requirements ensure that all hazards related to landslides can be reduced to a less than significant level with implementation of standard requirements through Mitigation Measure 4.7-2.

2. Result in substantial soil erosion or the loss of topsoil?

Implementation of the Project may result in potential impacts that could result in substantial soil erosion or the loss of topsoil; change deposition, siltation, or erosion that may modify the channel or stream or bed of a lake; result in any increase in water erosion either on or off site; or be impacted by or result in an increase in wind erosion and blows, either on or off site. Impacts to these resources are discussed in great detail in Section 4.10 (Hydrology and Water Quality) of this DEIR. During the process of construction, site disturbance will expose soil to both wind and water erosion. A potential for significant adverse erosion impact both during construction and after development will result from project implementation. However, mitigation has been identified in Section 4.10, Hydrology and Water Quality, that would reduce potential Project erosion and sedimentation impacts to a less than significant level. No additional mitigation is required in this Section.

3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Please refer to the discussion under 1iii and 1iv above for discussion of landslide, lateral spreading, and liquefaction impacts.

Collapse

According to the 2018 Geotechnical Report, the WVWRF site has a slight collapse potential. Collapse potential is evaluated in the laboratory using ASTM D4546, wherein a soil sample is seated in a consolidation apparatus and loaded dry to a selected pressure, then saturated. Table 4.7-2 summarizes Collapse Potential Test (ASTM D4546) results for this project:

**Table 4.7-2
SUMMARY OF COLLAPSE POTENTIAL TEST RESULTS**

| Boring ID | Site Location | Sample Depth (ft) | USCS Soil Type | Final Moisture Content (%) | Fine Dry Unity Weight (pcf) | Collapse Potential (%) |
|-----------|---------------|-------------------|----------------|----------------------------|-----------------------------|------------------------|
| ACM-17-B4 | WVWRF | 5 | SW-SM | 14 | 112 | 0.3 |
| LCI-08-B1 | WVWRF | 20 | SM/SP | 17.5 | 113 | 0.1 |
| LCI-08-B2 | WVWRF | 30 | SM/SP | 21 | 106 | 0.2 |
| LCI-08-B7 | WVWRF | 22 | SM/SP | 21 | 107 | 0.6 |

Notes: LCI – Landmark Consultants Inc. (2008), ACM – AECOM Technical Services (2017)

**Table 4.7-3
DEGREE OF COLLAPSE AND RANGES OF COLLAPSE INDEX¹**

| Degree of Collapse | Collapse Index (%) |
|--------------------|--------------------|
| None | 0 |
| Slight | 0.1 to 2.0 |
| Moderate | 2.1 to 6.0 |
| Moderate to Severe | 6.1 to 10.0 |
| Severe | >10 |

¹ Collapse classification index in accordance with ASTM D5333-03

Based on laboratory test results from current and previous investigations, the site has a slight collapse potential. The Project will be required to comply with the overall design standards are outlined on pages 5-1 to 5-13 of the 2018 Geotechnical Report, and although a standard requirement, and not considered unique mitigation under CEQA, these design standards are considered a requirement through the implementation of Mitigation Measure 4.7-2, which ensures that the Geotechnical recommendations are enforced as requirements for the proposed Project. The reader is referenced to the Geotechnical Evaluation in Appendix 5 of Volume 2, Technical Appendices for the detailed site design requirements. The design requirements ensure that all hazards related to collapse can be reduced to a less than significant level with implementation of standard requirements through Mitigation Measure 4.7-2.

Corrosivity

Corrosivity can also cause soil instability. The 2018 Geotechnical Investigation Report addresses the issue of corrosivity.

Caltrans (Caltrans, 2015) considers a site to be corrosive to foundation elements if one or more of the following conditions exist for the soil samples taken from the WVWRF site:

- Chloride concentration is greater than or equal to 500 parts per million (ppm),
- Sulfate concentration is greater than or equal to 2,000 ppm, and
- PH is 5.5 or less.

The minimum resistivity can be an indicator for the relative quantity of soluble salts present in the soil or water. In general, a minimum resistivity value less than 1,000 ohm-cm indicates high

soluble salts and higher propensity for corrosion. However, since sulfate and chloride contents were measured, the minimum resistivity is considered an indicator only.

The 2018 Geotechnical Investigation Report indicates that, based on the results of the corrosivity testing, the site is interpreted to be non-corrosive in accordance with the Caltrans corrosion guidelines, and as shown in Table 4.7-4, Summary of Corrosive Test Results.

**Table 4.7-4
SUMMARY OF CORROSIVITY TEST RESULTS**

| Boring ID | Depth (ft) | Approximate Elevation (feet NAVD88) | pH Threshold ≤ 5.5 | Minimum Resistivity (Ohm-cm) Threshold ≤ 1,000 | Sulfate Content (ppm) Threshold ≥ 2,000 | Chloride Content (ppm) Threshold ≥ 500 |
|-----------|------------|-------------------------------------|--------------------|--|---|--|
| ACM-17-B4 | 10 | 760 | 9.8 | 9,600 | 17 | 2.0 |
| LCI-08-B1 | 10 | 761 | 11.4 | 2,400 | 139 | 4.5 |

Notes:

(1) ppm = parts per million. ND = Non Detectable. ohm-cm = ohm-centimeter.

(2) Resistivity is not a corrosion criterion, but an indicator of soluble salts per Caltrans Corrosion Guidelines (Caltrans, 2015).

As previously stated, the proposed sewage conveyance pipeline would be located below ground within existing roadways and throughways, and pipelines are typically not susceptible to soil instability. In general, damage to pipelines can occur, but can be repaired and placed back into operation with no loss of human life. Therefore, impacts related to corrosivity are considered less than significant; no mitigation is required.

Earthwork Recommendations

The Project will be required to comply with the recommendations contained within the 2018 Geotechnical Evaluation to address soil instability addressed on pages 5-1 to 5-6 and enforced through Mitigation Measure 4.7-2. In summary, the geotechnical earthwork recommendations encompass the following requirements in generalized terms; for detailed requirements refer to the 2018 Geotechnical Evaluation (pages 5-1 to 5-6):

- Site Clearing, Grubbing and Stripping
- Temporary Excavations
- Over-excavation
- Subgrade Preparation
- Excavation
- Structural Fill beneath Structures
- Fill Placement and Compaction
- Trench Wall Stability
- Trench Preparation and Backfill
 - General Considerations
 - Subgrade Preparation
 - Pipe Bedding
 - Compaction of Bedding
 - Pipe Zone and Final Backfill
 - Imported Materials

Infiltration Basin

The Project will be required to comply with the recommendations contained within the 2018 Geotechnical Evaluation to address design of the infiltration basins addressed on pages 5-7 to 5-9 and enforced through Mitigation Measure 4.7-2. In summary, the geotechnical earthwork recommendations encompass the following requirements in generalized terms; for detailed requirements refer to the 2018 Geotechnical Evaluation (pages 5-7 to 5-6):

- Design Recommendations
- Site Clearing
- Ground Preparation – Improvement Areas
- Ground Preparation – Slope Facing
- Fills/Backfills and Compaction
- Imported Soils
- Geotechnical Observations

Foundation Design Recommendations

The Project will be required to comply with the recommendations contained within the 2018 Geotechnical Evaluation to address soil instability. In summary, the geotechnical earthwork recommendations encompass the following requirements in generalized terms; for detailed requirements refer to the 2018 Geotechnical Evaluation (pages 5-9 to 5-13):

- Allowable Bearing Values
- Settlement
- Resistance to Lateral Loads
- Foundation Design Parameters
- Slab On-Grade
- Pavement Recommendations

All of these recommendations are provided in more detail beginning on Page 5-1 of the 2018 Geotechnical Report. The above summary is to provide reviewers with information regarding the type of site geotechnical and soil issues and mitigation that shall be enforced through implementation of Mitigation Measure 4.7-2. The detailed recommendations in Appendix 5 of Volume 2, Technical Appendices will control actual construction requirements.

Conclusion

Summary of findings from the 2018 Geotechnical Investigation:

- Shallow foundations are a proposed option for the WVWRF site. It is anticipated that all structures will be founded on mat foundations or slabs-on-grade.
- Due to the presence of loose soils at the anticipated bottom of footing elevation at the WVWRF site, it is recommended that soils within 3 feet from the bottom of foundation or slab on grade be removed and replaced with structural backfill following recommendations in the 2018 Geotechnical Investigation.
- At the WVWRF site, unsupported temporary slopes with conditions similar to those encountered during the exploration (Cal/OSHA Type C soils) should be made at an inclination no steeper than 1.5:1 (horizontal to vertical), or flatter if field conditions dictate.
- As soil conditions may vary at the WVWRF site, the contractor should employ an excavation competent person as defined by Cal/OSHA to determine all aspects of excavation safety.

- Majority of the WVVRF site soils are suitable for use as structural fill provided it meets the requirements outlined in the 2018 Geotechnical Investigation.

As stated under issues 1iii and 1iv above, damage to pipelines can occur, but can be repaired and placed back into operation with no loss of human life. Based on the analysis above, though the project is located within soils that may be unstable, the type of project would minimize impacts to structures or humans from occurring. Therefore, impacts from development of the proposed conveyance pipeline alignment are considered less than significant.

The development of the WVVRF will be required to comply with the recommendations contained within the 2018 Geotechnical Evaluation pursuant to mitigation measure 4.7-3. The reader is referred to the 2018 Geotechnical Investigation Report provided as Appendix 5 of Volume 2, Technical Appendices for the detailed site design requirements. With implementation of standard requirements through mitigation measure 4.7-3, impacts related to the unstable soil at the WVVRF site can be reduced to a less than significant level.

4. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial risks to life or property?

According to the 2018 Geotechnical Report, the material on the WVVRF site predominantly consists of granular soils. Expansive soils are typically fine grained, and as such the potential for expansive soils should be considered low.

The proposed WVVRF would develop a sewage conveyance pipeline that is not anticipated to traverse through any expansive soils, given that the general area consists of granular soils characteristic of the Desert Hot Springs area landscape. According to the City of Desert Hot Springs General Plan, in the General Plan study area, expansive soils are not generally considered a hazard because of the relatively minor amount of clay present in the soils. Where expansive soils may occur is in the Qf3 and Qf4 soils, which generally occur north of the Mission Creek Fault and in the vicinity of Whitewater Hill. The proposed conveyance pipeline alignment would not be located north of the Mission Creek Fault or in the vicinity of Whitewater Hill, and therefore is not anticipated to be located in an area susceptible to expansive soils. Impacts under this issue are considered less than significant.

5. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

The proposed Project proponent is MSWD, and the overall Program is intended to expand MSWD's wastewater treatment capacity within and surrounding MSWD's service area. The proposed WVVRF would provide the area M2 residences with the opportunity to remove individual septic systems by providing new municipal wastewater service connections. No septic systems or alternative wastewater disposal systems are proposed as part of the WVVRF. 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.

4.7.6 Avoidance, Minimization and Mitigation Measures

As a standard condition, the Project will be required to comply with the recommendations contained within the 2018 Preliminary Geotechnical Investigation Report, summarized in this Chapter, and presented in detail in Appendix 5 of Volume 2, Technical Appendices. Adherence

to this standard condition of approval will ensure that most potential geology and soil impacts can be reduced to less than significant impacts.

4.7-1 *Based upon the geotechnical investigation (Appendix 5 of Volume 2, Technical Appendices), the seismic design parameters identified within the document shall be implemented by the MSWD. Implementation of these specific measures will address all of the identified seismic related geotechnical constraints identified at WVVRF site. The recommended design and construction parameters include, but are not limited the parameters outlined in Table 4.7-1 of the DEIR, and also, as indicated on Page 4-3 of the 2018 Geotechnical Report, once the design has been formulated for the planned, a slope stability analyses shall be performed and MSWD shall conform to the recommendations thereof to ensure soil stability at the recharge basins.*

4.7-2 *Based upon the geotechnical investigation (Appendix 5 of Volume 2, Technical Appendices), all of the recommended design and construction measures identified within the document shall be implemented by the Applicant. Implementation of these specific measures will address all of the identified geotechnical constraints identified at WVVRF site, including soil stability on future structures. These recommended design and construction measures include, but are not limited the following summarized categories/requirements (outlined in greater detail on Pages 5-1 through 5-13 of the 2018 Geotechnical Report):*

- **Earthwork**
 - **Site Clearing, Grubbing and Stripping**
 - **Temporary Excavations**
 - **Over-excavation**
 - **Subgrade Preparation**
 - **Excavation**
 - **Structural Fill beneath Structures**
 - **Fill Placement and Compaction**
 - **Trench Wall Stability**
 - **Trench Preparation and Backfill**
 - **General Considerations**
 - **Subgrade Preparation**
 - **Pipe Bedding**
 - **Compaction of Bedding**
 - **Pipe Zone and Final Backfill**
 - **Imported Materials**
- **Infiltration Basin**
 - **Design Recommendations**
 - **Site Clearing**
 - **Ground Preparation – Improvement Areas**
 - **Ground Preparation – Slope Facing**
 - **Fills/Backfills and Compaction**
 - **Imported Soils**
 - **Geotechnical Observations**
- **Foundation Design**
 - **Allowable Bearing Values**
 - **Settlement**
 - **Resistance to Lateral Loads**
 - **Foundation Design Parameters**
 - **Slab On-Grade**
 - **Pavement Recommendations**

Implementation of the above mitigation measure, as well as erosion control measure outlined in Chapter 4.10 (Hydrology) can reduce geology and soil issues to a less than significant level.

4.7.7 Cumulative Impacts

Development of the proposed Program will be affected by geotechnical constraints on the within the program alignment. None of the Project-related activities are forecast to cause changes in geology or soils or the constraints affecting the Project area that cannot be fully mitigated. Geology and soil resources are inherently site specific and the only cumulative exposure would be to a significant geological or soil constraint (onsite fault, significant ground shaking that could not be mitigated or steep slopes creating a landslide exposure). Therefore, the Project has no potential to make a cumulatively considerable contribution to any significant geology or soils impact. Project soil and geology impacts are less than significant.

4.7.8 Unavoidable Significant Adverse Impacts

The existing geology and soil resources and constraints have been evaluated for impact to and from the implementation of the Project. No unavoidable significant adverse on-site or off-site geology or soil impacts have been identified. Mitigation, in the form of standard conditions and limited mitigation measures, has been identified, that must be implemented to control exposure to potentially significant seismic impacts. With implementation of the recommended seismic design measures, structures and future persons working within these structures, can be adequately protected. The Program can be implemented without causing or experiencing significant unavoidable geology or soil impacts. The project geology resource impacts are less than significant.

FIGURE 4.7-1
Fault Map



4.8 GREENHOUSE GASES / GLOBAL CLIMATE CHANGE

4.8.1 Introduction

The Earth's climate has changed many times during the planet's history, with events ranging from ice ages to long periods of warmth. Historically, natural factors such as volcanic eruptions, changes in the Earth's orbit, and the amount of energy released from the Sun have affected the Earth's climate. The term "climate" refers to the long-term average weather that is experienced at a site location or specific area.

The atmosphere's greenhouse effect is a natural occurrence that helps regulate the temperature of our planet. When the Sun heats the Earth, much of this heat escapes back to space. The rest of the heat, also known as infrared radiation, is trapped in the atmosphere by clouds and greenhouse gases (GHGs), such as water vapor and carbon dioxide (CO₂), which occur naturally. If all of these GHGs were to suddenly disappear, our planet would be about 60°F colder and would not support life as we know it. However, beginning in the late 18th century human activities associated with the Industrial Revolution enhanced the natural greenhouse effect by adding GHGs to the natural background mix at a faster rate than at any other time on record. Today, fossil fuel combustion is one of the primary sources of CO₂ emissions. The five major fuel consuming sectors contributing to CO₂ emissions are electricity generation, transportation, industrial, residential, and commercial uses.

Scientists have observed a global warming trend beginning around the late 1800s. The global temperature record shows an average warming of about 1.3°F over the past century. The most rapid warming has occurred in recent decades. According to the National Oceanic and Atmospheric Administration (NOAA), seven of the eight warmest years on record have occurred since 2001. Within the past 30 years, the rate of warming across the globe has been approximately three times greater than the rate over the last 100 years. Past climate information suggests the warmth of the last half-century is unusual in at least the previous 1,300 years in the Northern Hemisphere. The preponderance of scientific evidence indicates that most of this recent warming is very likely the result of human activities.

The *Air Quality and GHG Impact Analyses, MS-257 Mission Springs Water District Project, Desert Hot Springs And Riverside County, California* (AQGHGIA) dated February 25, 2019 was prepared by Giroux & Associates to evaluate the potential impacts to greenhouse gas associated with construction and operation of the proposed Project. A copy of the AQGHGIA is provided as Appendix 2 of Volume 2 of this DEIR. Much of the information provided in the following sections is abstracted directly from this technical report with minor edits.

This document is a full-scope DEIR for the above-described project and all of the standard issues related to land use and planning resources identified in Appendix G of the State CEQA Guidelines. The issues pertaining to noise will be discussed below as set forth in the following framework:

- 4.8.1 Introduction
- 4.8.2 Introduction to Global Climate Change
- 4.8.3 Greenhouse Gases
- 4.8.4 Regulatory Setting
- 4.8.5 Environmental Consequences
- 4.8.6 Avoidance, Minimization and Mitigation Measures

4.8.7 Cumulative Impacts

4.8.8 Unavoidable Significant Adverse Impacts

The following comment concerning greenhouse gas was received in response to the Notice of Preparation (NOP) for the proposed Project.

Comment Letter #2 from South Coast Air Quality Management District (SCAQMD) (dated 3/5/19) states:

- Send DEIR and Air Quality/GHG technical appendices, along with CalEEMod files, directly to SCAQMD at address provided, submit for review
- Use SCAQMD CEQA Handbook and CalEEMod for forecast
- Use SCAQMD regional and localized significance thresholds
- Identify potential adverse AQ/GHG impacts from project construction and operations (all phases of the proposed project)
- If necessary, perform mobile source health risk assessment, including toxic air contaminant impacts
- Assess compatibility of land uses with respect to air quality (such as placing sensitive receptors near air pollution sources, or vice versa)
- Identify mitigation measures, and identify any impacts that would result from mitigation measures
- Include an Alternative Analysis
- Assess whether the project requires a permit from SCAQMD using the link provided in the Comment Letter
- Access to SCAQMD rules and relevant air quality reports are available at the phone number and link provided in the Comment Letter

Response: The Greenhouse Gas mitigation measures conform to the expectations of SCAQMD. All of the information and analysis required by SCAQMD is included in this Chapter.

Other documents referenced in the preparation of this chapter include:

- City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000

4.8.2 Introduction to Global Climate Change

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. GCC is currently one of the most controversial environmental issues in the United States, and much debate exists within the scientific community about whether or not GCC is occurring naturally or as a result of human activity. Regardless, there is no question regarding the fact that the earth's atmosphere is warming more rapidly now than in recent history. Some data suggests that GCC has occurred in the past over the course of thousands or millions of years. These historical changes to the earth's climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of greenhouse gases resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in the AQGHGIA cannot generate enough greenhouse gas emissions to affect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of greenhouse gases combined with the cumulative increase of all other sources of greenhouse gases, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, the analysis herein will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

4.8.2.1 Global Climate Change Definition

GCC refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO₂ (carbon dioxide), N₂O (nitrous oxide), CH₄ (methane), hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radiative heat from escaping, thus warming the earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages.

Gases that trap heat in the atmosphere are often referred to as greenhouse gases. Greenhouse gases are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural greenhouse gas effect, the earth's average temperature would be approximately 60° Fahrenheit (F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

Although California's rate of growth of GHG emissions is slowing, the state is still a substantial contributor to the U.S. emissions inventory total. In 2004, California is estimated to have produced 492 million gross metric tons of CO₂e greenhouse gas emissions. Despite a population increase of 16 percent between 1990 and 2004, California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls.

4.8.3 Greenhouse Gases

For the purposes of this analysis, emissions of carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) were evaluated because these gases are the primary contributors to GCC from development projects. Although there are other substances such as fluorinated gases that also contribute to GCC, these fluorinated gases were not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases.

4.8.3.1 Water Vapor

Water vapor (H₂O) is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrial-

zation. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change.

As the temperature of the atmosphere rises, more water is evaporated from surface storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the earth's surface and heat it up).

There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and water vapor can then act as a pollutant-carrying agent. The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include: evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.

4.8.3.2 Carbon Dioxide

Carbon dioxide (CO₂) is an odorless and colorless GHG. Outdoor levels of carbon dioxide are not high enough to result in negative health effects. Carbon dioxide is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. Carbon dioxide is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks.

Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO₂ concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Left unchecked, the concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources.

4.8.3.3 Methane

Methane (CH₄) is an extremely effective absorber of radiation, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs. No health effects are known to occur from exposure to methane.

Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle,

using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

4.8.3.4 Nitrous Oxide

Nitrous oxide (N₂O), also known as laughing gas, is a colorless GHG. Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage).

Concentrations of nitrous oxide also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the earth's surface, and be converted to other compounds by chemical reaction.

4.8.3.5 Chlorofluorocarbons

Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C₂H₆) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs are no longer being used; therefore, it is not likely that health effects would be experienced. Nonetheless, in confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

4.8.3.6 Hydrofluorocarbons

Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF₃), HFC-134a (CF₃CH₂F), and HFC-152a (CH₃CHF₂). Prior to 1990, the only significant emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. EPA estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt. No health effects are known to result from exposure to HFCs, which are manmade for applications such as automobile air conditioners and refrigerants.

4.8.3.7 Perfluorocarbons

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF₄) and hexafluoroethane (C₂F₆). The U.S. EPA estimates that concentrations of CF₄ in the atmosphere are over 70 ppt. No health effects are known to result from exposure to PFCs. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

4.8.3.8 Sulfur Hexafluoride

Sulfur hexafluoride (SF₆) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest global warming potential (GWP) of any gas evaluated (23,900). The U.S. EPA indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

4.8.3.9 Aerosols

Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon is emitted during biomass burning due to the incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

4.8.3.10 Global Warming Potential

GHGs have varying Global Warming Potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. Carbon dioxide is utilized as the reference gas for GWP, and thus has a GWP of 1. The atmospheric lifetime and GWP of selected GHGs are summarized at Table 4.8-1. As shown in the table below, GWP for the Second Assessment Report (SAR), the Intergovernmental Panel on Climate Change (IPCC)'s scientific and socio-economic assessment on climate change, range from 1 for carbon dioxide to 23,900 for sulfur hexafluoride and GWP for the IPCC's 4th Assessment Report (AR4) range from 1 for carbon dioxide to 22,800 for sulfur hexafluoride.

**Table 4.8-1
GLOBAL WARMING POTENTIALS AND ATMOSPHERIC LIFETIMES**

| Gas | Atmospheric Lifetime (years) | Global Warming Potential (100 year time horizon) | |
|---------------------------|------------------------------|--|-----------------------------|
| | | Second Assessment Report (SAR) | 4th Assessment Report (AR4) |
| Carbon Dioxide | 50-200 | 1 | 1 |
| Methane | 12 ± 3 | 21 | 25 |
| Nitrous Oxide | 114 | 310 | 298 |
| HFC-23 | 270 | 11,700 | 14,800 |
| HFC-134a | 14 | 1,300 | 1,430 |
| HFC-152a | 1.4 | 140 | 124 |
| Sulfur Hexafluoride (SF6) | 3,200 | 23,900 | 22,800 |

Source: Table 2.14 of the IPCC Fourth Assessment Report, 2007

4.8.4 Regulatory Setting

4.8.4.1 Federal Regulation and the Clean Air Act

The U.S. Environmental Protection Agency (EPA) issued an Endangerment Finding under Section 202(a) of the Clean Air Act on December 7, 2009, based on the finding that GHGs threaten public health and welfare and are subject to regulation under the Clean Air Act. Previously the EPA had not regulated GHGs under the Clean Air Act because it asserted that the Act did not authorize it to issue mandatory regulations to address global climate change and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In *Massachusetts v. Environmental Protection Agency et al.*, 127 U.S. 1438 (2007), however, the U.S. Supreme Court held that GHGs are pollutants under the Clean Air Act and directed the EPA to decide whether the gases endangered public health or welfare. To date, the EPA has not promulgated regulations on GHG emissions, but it has begun to develop them.

4.3.4.2 State – California Air Resources Board

The State currently has no regulations that establish ambient air quality standards for GHGs. However, the State has passed laws directing California Air Resources Board (CARB) to develop actions to reduce GHG emissions, which are listed, in part, below; for further regulations please refer to pages 19-39 of the GHGIA provided as Appendix 1 of Volume 2 of this Focused DEIR.

Senate Bill 97

Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. On December 30, 2009 the Natural Resources Agency adopted amendments to the state CEQA guidelines that address GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporated GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance were provided and no specific mitigation measures were identified. The GHG emission reduction amendments went into effect on March 18, 2010 and are summarized below:

- Climate action plans and other GHG reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the GHG emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of GHG emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that “to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation.”
- OPR’s emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

Assembly Bill 32

In 2006, the California State Legislature adopted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which will be phased in starting in 2012. Emission reductions shall include carbon sequestration projects that would remove carbon from the atmosphere and best management practices that are technologically feasible and cost effective.

On December 6, 2007 CARB released the calculated Year 1990 GHG emissions of 427 million metric tons of CO₂e (MMTCO₂e). The 2020 target of 427 MMTCO₂e requires the reduction of 169 MMTCO₂e, or approximately 30 percent from the State’s projected 2020 business as usual emissions of 596 MMTCO₂e and the reduction of 42 MMTCO₂e, or almost 10 percent from the 2002-2004 average GHG emissions. Under AB 32, CARB was required to adopt regulations by January 1, 2011 to achieve reductions in GHGs to meet the 1990 cap by 2020. Early measures CARB took to lower GHG emissions included requiring operators of the largest industrial facilities that emit 25,000 metric tons of CO₂ in a calendar year to submit verification of GHG emissions by December 1, 2010. The CARB Board also approved nine discrete early action measures that include regulations affecting landfills, motor vehicle fuels, refrigerants in cars, port operations and other sources that became enforceable on or before January 1, 2010.

On December 11, 2008 the CARB Board approved a Scoping Plan, with final adoption May 11, 2009 that proposed a variety of measures including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, a

market-based cap-and-trade system, and a fee regulation to fund the program. In response to litigation, CARB prepared the Supplement to the AB 32 Scoping Plan Functional Equivalent Document, June 13, 2011. On August 24, 2011 CARB recertified the complete AB 32 Scoping Plan Functional Equivalent Environmental Document revised by the Final Supplement. In December, 2011 the Final Supplement was accepted as sufficient by the court.

While local government operations were not accounted for in achieving the 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 metric tons of CO₂e, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of 2010 levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 metric tons of CO₂e (or approximately 1.2 percent of the GHG reduction target).

In May 2014, CARB released its First Update to the Climate Change Scoping Plan (CARB 2014). This Update identifies the next steps for California's leadership on climate change. This report lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050.

On January 20, 2017, CARB announced its release of a proposed plan to reduce GHG emissions by 40 percent below 1990 levels by 2030 – the most ambitious target in North America. The plan builds on the state's successful efforts to reduce emissions and outlines the most effective ways to reach the 2030 goal, including continuing California's Cap-and-Trade Program. The 2017 Scoping Plan was adopted in December 2017.

Senate Bill 375 – Sustainable Communities and Climate Protection Act

In 2008, the legislature passed SB 375, which built upon AB 32 by connecting the reduction of GHG emissions from cars and light trucks to regional, and local land use and transportation planning. SB 375 requires the California Air Resources Board (ARB) to establish GHG emission reduction targets for each region, and each metropolitan planning organization (MPO) to create a Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan (RTP) to meet regional emissions reduction targets.

Assembly Bill 1493 Pavley Regulations and Fuel Efficiency Standards

California AB 1493, enacted on July 22, 2002, required ARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks.

Senate Bill 350— Clean Energy and Pollution Reduction Act of 2015

In October 2015, the legislature approved and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Provisions for a 50 percent reduction in the use of petroleum statewide were removed from the Bill because of opposition and concern that it would prevent the Bill's passage.

Senate Bill 32

The California Global Warming Solutions Act of 2006 designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of GHGs. Senate Bill 32 was signed on September 8, 2016 by Governor Jerry Brown. SB 32 requires the state to reduce statewide GHG emissions to 40 percent below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide GHG reduction target of 80 percent below 1990 levels by 2050. AB 197 creates a legislative committee to oversee regulators to ensure that CARB is not only respond to the Governor, but also the Legislature.

Executive Order B-37-16

Executive Order B-29-15, continuing the State's adopted water reductions, was signed into law on May 9, 2016. The water reductions build off the mandatory 25 percent reduction called for in EO B-29-15.

Executive Order B-30-15

Executive Order B-30-15, establishing a new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030, was signed by Governor Brown in April 2015.

Executive Order B-29-15

Executive Order B-29-15, mandates a statewide 25 percent reduction in potable water usage. EO B-29-15 signed into law on April 1, 2015.

Executive Order S-01-07 – Low Carbon Fuel Standard

The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.

Executive Order S-13-08

Pursuant to the requirements in the Order, the 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2009) was adopted, which is the "... first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

California Code of Regulations (CCR) Title 24, Part 11

All buildings for which an application for a building permit is submitted on or after January 1, 2017 must follow the 2016 standards. The 2016 residential standards are estimated to be approximately 28 percent more efficient than the 2013 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions.

California Green Building Standards

On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. CCR Title 24, Part 11 now require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction

waste from landfills, and install low pollutant-emitting finish materials. One focus of CCR Title 24, Part 11 is water conservation measures, which reduce GHG emissions by reducing electrical consumption associated with pumping and treating water. CCR Title 24, Part 11 has approximately 52 nonresidential mandatory measures and an additional 130 provisions for optional use. Some key mandatory measures for commercial occupancies include specified parking for clean air vehicles, a 20 percent reduction of potable water use within buildings, a 50 percent construction waste diversion from landfills, use of building finish materials that emit low levels of volatile organic compounds, and commissioning for new, nonresidential buildings over 10,000 square feet.

The 2016 version of the standards became effective as of January 1, 2017. The 2016 version addressed additional items such as clean air vehicles, increased requirements for electric vehicles charging infrastructure, organic waste, and water efficiency and conservation.

4.3.4.3 Regional – South Coast Air Quality Management District

The project is within the South Coast Air Basin, which is under the jurisdiction of the SCAQMD.

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 types. Although the 10,000 MT industrial threshold would be appropriate for this project, the more stringent 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.

4.8.5 Environmental Consequences

The Project has been evaluated to determine if it will result in a significant GHG impact. The significance of these potential impacts is described in the following section. According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- 1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.**
- 2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.**

Construction Activity GHG Emissions

The project is assumed to require less than two years 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 4.8-2.

**Table 4.8-2
CONSTRUCTION EMISSIONS (METRIC TONS CO₂e)**

| Year 2019 | CO₂e |
|------------------|------------------------|
| WVWRP | 359.1 |
| 2 Pipelines | 196.8 |
| Total | 555.9 |
| Amortized | 18.5 |

| Year 2020 | CO₂e |
|------------------|------------------------|
| WVWRP | 170.7 |
| Amortized | 5.7 |

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.

Project Operational GHG Emissions

Except for employee commuting, the only operational source of GHG emissions would be associated with electrical motors. Electricity is generated from a variety of resources at various locations in the western United States. The California Climate Action Registry Protocol (2009) states that each megawatt-hour (MWH) of electricity consumption in California results in the release of 0.331 MT of CO₂(e).

The project proposes equipment totaling approximately 1,030 HP which would translate into 770 KW. Assuming the equipment operates with an 80 percent load factor this would translate to an annual average of 5,400 MWH per year in increased project electrical consumption. Electricity use will result in GHG emissions from the fossil fueled fraction of Southern California's electrical resource calculated as follows:

$$5,400 \text{ MWH/year} \times 0.331 \text{ MT/MWH} = 1,787 \text{ MT/year}$$

Therefore, the Table 4.8-3 summarizes the total project contribution to GHG.

**Table 4.8-3
TOTAL PROJECT GHG EMISSIONS
OPERATIONS**

| Source of Emissions: | MT/year CO₂(e) |
|--|----------------------------------|
| Electrical Consumption | 1,787.0 |
| Employee Commuting and On-Site Energy Use* | 129.4 |
| Amortized Construction | 24.2 |
| Total | 1,940.6 |

*mobile emissions associated with commuting and on-site area source, energy, water and waste emissions for employees working at the site

The screening threshold of 3,000 MT of CO₂(e) GHG emissions will not be exceeded. Both the construction and operations GHG emissions are far below the 3,000 MT CO₂(e) advisory threshold for impact significance.

4.8.6 Avoidance, Minimization and Mitigation Measures

Mitigation measures designed to reduce GHG emissions from construction and operation of WVWRP are identified in Subchapter 4.4, Air Quality, of this DEIR (measures 4.4-1 through 4.4-2). No additional mitigation measures are recommended or required.

4.8.7 Cumulative Impacts

In 2016, California GHG emissions totaled 429.4 million metric tons CO₂e¹. The proposed project will generate approximately 1,940.6 metric tons of CO₂e per year during operations, or about 0.000452 percent of this amount. An individual project such as the proposed Project cannot generate enough GHG emissions to effect a discernible change in global climate. The proposed Project would not contribute to global climate change through an incremental contribution of GHGs because the GHG emissions are well below the SCAQMG thresholds. As such, the proposed project would not result in a cumulatively considerable/significant adverse air quality impact.

Project-related GHG emissions are not considered to be cumulatively considerable and would not result in a significant impact on global climate change. Project GHG emissions are a less than significant impact.

4.8.8 Unavoidable Significant Adverse Impacts

As stated above, an individual project such as the proposed Project cannot generate enough GHG emissions to effect a discernible change in global climate. However, the proposed Project may contribute to global climate change by its incremental contribution of GHGs. With implementation of the recommended mitigation measures identified in Chapter 4.8, Air Quality, the proposed Project would not exceed SCAQMD thresholds for GHG. Thus, the proposed Project would not result in new significant GHG impacts nor would it result in a substantial increase in the severity of GHG impacts with implementation of the identified Air Quality mitigation measures. Project-related GHG emissions are not considered to be significant or adverse and would not result in an unavoidable significant adverse impact on global climate change. Project GHG emissions are considered less than significant impact.

¹<https://www.arb.ca.gov/cc/inventory/data/data.htm>

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4.9 HAZARDS AND HAZARDOUS MATERIALS

4.9.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue area of hazards and hazardous materials resources from implementation of the Project. The West Valley Water Reclamation Program (WVWRP) DEIR identifies the following issues, as outlined in Appendix G of the CEQA Guidelines, to define when a project would normally have a significant effect on the environment if the project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- 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?
- Impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- 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?
- Result in an inconsistency with an Airport Master Plan?
- Require review by the Airport Land Use Commission?
- 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 for people residing or working in the Project area?
- For a Project within the vicinity of a private airstrip, or heliport, would the Project result in a safety hazard for people residing or working in the Project area?
- 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 Notice of Preparation (NOP) determined that all of these issue areas would be analyzed in the DEIR. Simply stated the hazards issues can be categorized as those past activities on the project site that may have resulted in contamination that would constrain future uses or, alternatively, a proposed use that could create new hazards from the type of activities associated with the future uses of the site.

These issues will be discussed below as set in the following framework:

- Environmental Setting
- Regulatory Setting
- Thresholds of Significance
- Potential Impacts
- Standard Conditions and Mitigation Measures
- Cumulative Impact
- Unavoidable Significant Adverse Impacts

The following references were used in prepared this Subchapter of the DEIR:

- City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000
- *Phase I Environmental Site Assessment Proposed West Valley Water Reclamation Facility 60-Acre Site NWC Little Morongo Road and 20th Avenue Desert Hot Springs Riverside County, California*, LOR Geotechnical Group, Inc. December 14, 2018
- Riverside County Airport Land Use Commission, *Riverside County Airport Land Use Compatibility Plan Policy Document*, March 2005

No comments specific to this topic were received in response to the NOP. No comments were received at the scoping meeting held for the proposed Project.

4.9.2 Environmental Setting

Project Site

Under present circumstances the West Valley Water Reclamation Facility (WVWRF) site is vacant. The Phase 1 Environmental Site Assessment historical review concluded that the project site has never been developed. The project site is located within the Colorado Desert geomorphic province of California. A major feature of the Colorado Desert geomorphic province is the Salton Trough. The Salton Trough is a seismically active, extensional basin influenced by the movement along the San Andreas Fault which separates the Pacific Plate to the west and the North American Plate to the east. The Salton Trough is a large northwest-southeast oriented basin. The basin is filled with alluvial sediments that have been shed off the surrounding mountains and subsequently carried down the valley towards the Salton Sea via alluvial fan and fluvial processes (e.g. Mission Creek and Whitewater River drainage systems in Coachella Valley). The Coachella Valley forms the northern part of the basin which opens up to the much broader Imperial Valley to the southeast. The northeastern side of the basin is bound by the Little San Bernardino Mountains and the Chocolate Mountains. The southwestern side of the basin is bound by the San Jacinto Mountains and the Santa Rosa Mountains. The surrounding mountains are typically composed of crystalline basement rock. The material filling the basin is predominantly Quaternary aged alluvial fan, fluvial, and lacustrine deposits. Early Quaternary/late Tertiary sedimentary deposits crop out, forming small hills within the valley as geomorphic expressions of the San Andreas Fault.

The WVWRF footprint is situated within the northwestern end of the Coachella Valley. The project site is on a gentle, south-sloping alluvial fan surface within the general influence of the Mission Creek Drainage. A primary wash of the Mission Creek drainage system lies approximately 0.15 mile to the east of the project site. The subsurface deposits at the project site are derived from Late Holocene alluvial wash deposits and Holocene to Late Pleistocene alluvial valley deposits.

The proposed sewage collection system would be constructed within existing road rights-of-way. The pipeline alignment will be constructed within Little Morongo Road, Dillon Road, and within each of the roadways within Groundwater Quality Protection Program (GQPP) Area M2 (Shown on Figure 3-11, Chapter 3, Project Description). The majority of these roadways are paved, though Little Morongo Road is a dirt roadway from Dillon Road to the point at which the pipeline will connect to the WVWRF site.

4.9.3 Regulatory Setting

A number of federal, state, and local laws have been enacted to regulate the management of hazardous materials. Implementation of these laws and management of hazardous materials are regulated independently of the CEQA process through programs administered by various agencies at the federal, state, and local levels. An overview of the key hazardous materials laws and regulations that apply to the any activity that may handle hazardous materials or generate hazardous waste are provided below.

Federal

A number of federal agencies regulate hazardous materials. These include the Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), and the Department of Transportation (DOT). Applicable federal regulations are contained primarily in Titles 10, 29, 40, and 49 of the Code of Federal Regulations (CFR). The referenced agencies keep lists of known sites; these and other lists of known sites with hazardous materials contamination potential are checked to determine if any portion of the Project site has been identified as affected by hazardous wastes.

■ Environmental Protection Agency

The EPA is the primary federal agency responsible for the implementation and enforcement of hazardous materials regulations. In most cases, enforcement of environmental laws and regulations established at the federal level is delegated to state and local environmental regulatory agencies. Federal regulations such as the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA), regulate the cleanup of known hazardous waste sites and compile lists of the sites investigated, or currently being investigated, for a release or potential release of a regulated hazardous substance under the CERCLA regulations. The National Priorities List (NPL) of Superfund Sites is the EPA's database of hazardous waste sites currently identified and targeted for priority cleanup action under the Superfund program including Proposed NPL sites, Delisted NPL sites, and NPL Recovery sites. The NPL Liens database contains a list of filed notices of Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability.

The Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 requires hazardous waste handlers (generators, transporters, treaters, storers, and disposers of hazardous waste) to provide information about their activities to state environmental agencies. These agencies pass the information to regional and national EPA offices.

■ Federal Emergency Management Agency

In addition, with respect to emergency planning, Federal Emergency Management Agency (FEMA) is responsible for ensuring the establishment and development of policies and programs for emergency management at the federal, state, and local levels. This includes the development of a national capability to mitigate against, prepare for, respond to and recover from a full range of emergencies.

■ **Department of Defense Sites**

United States Geological Survey (USGS) maintains the Department of Defense (DOD) database, which consists of federally owned or administered lands, administered by the DOD, that have an area equal to or greater than 640 acres of the United States, Puerto Rico and the US Virgin Islands.

■ **Formerly Used Defense Sites:**

The U.S. Army Corps of Engineers (USACE) maintains a database of locations of Formerly Used Defense Sites (FUDS) where the USACE is actively working or will take necessary cleanup actions.

■ **Occupational Safety and Health Administration**

The Occupational Safety and Health Act of 1970 (OSH Act) requires employers to provide a safe and healthful workplace. Occupational Safety and Health Administration (OSHA) sets and enforces standards for safe and healthful working conditions.

■ **Department of Transportation**

The DOT includes the Pipeline and Hazardous Materials Safety Administration (PHMSA) which is responsible for regulating and ensuring the safe and secure movement of hazardous materials to industry and consumers by all modes of transportation, including pipelines. CFR Title 49 governs the manufacture of packaging and transport containers; packing and repacking, labeling, and the marking of hazardous material transport.

■ **Department of Housing and Urban Development**

Federal and state regulations govern the renovation and demolition of structures where materials containing lead and asbestos are present. Department of Housing and Urban Development (HUD) provides guidelines regulating lead exposure. The Code of Federal Regulations Part 61, Subpart M regulates asbestos exposure.

State

Primary state agencies with jurisdiction over hazardous materials management are the Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board (RWQCB). The project site is located within the jurisdiction of the Colorado River Basin RWQCB. Other state agencies involved in hazardous materials management are the Department of Industrial Relations (State OSHA implementation), Office of Emergency Services (OES-California Accidental Release Prevention implementation), Department of Fish and Wildlife (DFW), Air Resources Board (ARB), California Department of Transportation (Caltrans), State Office of Environmental Health Hazard Assessment (OEHHA-Proposition 65 implementation) and the CalRecycle. The enforcement agencies for hazardous materials transportation regulations are the California Highway Patrol (CHP) and Caltrans. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations. In addition, South Coast Air Quality Management District (SCAQMD) Rules and Regulations pertaining to asbestos abatement (including rule 1403), Construction Safety Orders 1529 (pertaining to asbestos) and 1532.1 (pertaining to lead) from Title 8 of the California Code of Regulations may be required for any materials discovered during any future soil moving activities that may contain hazardous materials due to prior activities.

■ **California Environmental Protection Agency**

The California EPA (Cal/EPA) has broad jurisdiction over hazardous materials management in the state. Within Cal/EPA, the DTSC has primary regulatory responsibility for hazardous waste management and cleanup. Enforcement of regulations has been delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law.

■ **Colorado River Basin RWQCB**

Along with the DTSC, the RWQCB is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. RWQCB regulations are contained in Title 27 of the California Code of Regulations (CCR). Additional state regulations applicable to hazardous materials are contained in Title 22 of the CCR. Title 26 of the CCR is a compilation of those sections or titles of the CCR that are applicable to hazardous materials.

■ **Department of Toxic Substances Control**

The DTSC regulates hazardous waste in California primarily under the authority of the Federal Resource Conservation and Recovery Act (RCRA), and the California Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reductions, cleanup, and emergency planning. Under RCRA, DTSC has the authority to implement permitting, inspection, compliance, and corrective action programs to ensure that people who manage hazardous waste follow state and federal requirements. As such, the management of hazardous waste of the nature and quantities which, are regulated that is disposed of, treated, stored, or handled on the Project site would be under regulation by the DTSC to ensure compliance with state and federal requirements pertaining to hazardous waste. California law provides the general framework for regulations of hazardous wastes by the Hazardous Waste Control Law (HWCL) passed in 1972. DTSC is the state's lead agency in implementing the HWCL. The HWCL provides for state regulation of existing hazardous waste facilities, which include "any structure, other appurtenances, and improvements on the land, used for treatment, transfer, storage, resource recovery, disposal, or recycling of hazardous waste," and requires permits for, and inspections of facilities involved in generation and/or treatment, storage and disposal of hazardous wastes.

■ **Hazardous Materials Management Plans**

In January 1996, Cal/EPA adopted regulations implementing a "Unified Hazardous Waste and Hazardous Materials Management Regulatory Program" (Unified Program). The six program elements of the Unified Program are hazardous waste generators and hazardous waste on-site treatment, underground storage tanks, above-ground storage tanks, hazardous materials release response plans and inventories, risk management and prevention program, and Uniform Fire Code hazardous materials management plans and inventories. The program is implemented at the local level by a local agency-the Certified Unified Program Agency (CUPA). The CUPA is responsible for consolidating the administration of the six program elements within its jurisdiction. For the County of Riverside, CUPA jurisdiction is under the Department of Environmental Health Services. The law requires businesses that use hazardous materials to provide inventories of those materials to designated emergency response agencies, to illustrate on a diagram where the materials are stored on site, to prepare an emergency response plan, and to train employees to use the materials safely. Thus, if any uses proposed as part of the Project would handle, store or use sufficient quantities of hazardous substances on-site that require regulations, they are required to comply with this law.

■ **California Accidental Release Prevention Program**

The California Accidental Release Prevention Program (CalARP) program (CCR Title 19, Division 2, Chapter 4.5) covers certain businesses that store or handle more than 500 pounds, 55 gallons, or 200 cubic feet of gas of specific regulated substances at their facilities. The CalARP program regulations became effective on January 1, 1997, and include the provisions of the Federal Accidental Release Prevention program (Title 40, CRF Part 68) with certain additions specific to the state pursuant to Article 2, Chapter 6.95, of the Health and Safety Code.

The list of regulated substances is found in Article 8, Section 2770.5 of the CalARP program regulations and include common cleaning products. However, as the minimum quantity that is regulated is 500 pounds or 55 gallons, it is unlikely that the onsite residences will use such quantities. The light industrial site is the most likely to fall under this regulatory oversight.

■ **Worker and Workplace Hazardous Materials Safety**

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of OSHA (Cal/OSHA) is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA obligates many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle. For example, manufacturers are to appropriately label containers, Material Safety Data Sheets are to be available in the workplace, and companies are to properly train employees.

■ **Hazardous Materials Transportation**

The CHP and Caltrans are the enforcement agencies for hazardous materials transportation regulations. Transporters of hazardous materials and waste are responsible for complying with all applicable packaging, labeling, and shipping regulations. The OES also provides emergency response services involving hazardous materials incidents.

■ **Investigation and Cleanup of Contaminated Sites**

The oversight of hazardous materials release site often involves several different agencies that may have overlapping authority and jurisdiction. The DTSC, local CUPA and RWQCB are the three primary agencies responsible for issues pertaining to hazardous materials release sites. Air quality issues related to remediation and construction at contaminated sites are also subject to federal and state laws and regulations that are administered at the local level.

Investigation and remediation activities that would involve potential disturbance or release of hazardous materials must comply with applicable federal, state, and local hazardous materials laws and regulations. DTSC has developed standards for the investigation of sites where hazardous materials contamination has been identified or could exist based on current or past uses.

■ **Utility Notification Requirements**

Title 8, Section 1541 of the CCR requires excavators to determine the approximate locations of subsurface utility installations (e.g., sewer, telephone, fuel, electric, water lines, or any other subsurface installations that may reasonably be encountered during excavation work) prior to opening an excavation. The California Government Code (Section 4216 et seq.) requires owners and operators of underground utilities to become members of and participate in a

regional notification center. According to Section 4216.1, operators of subsurface installations who are members or participate and share in the costs of a regional notification center are in compliance with this section of the code. Underground Services Alert of Southern California (known as DigAlert) receives planned excavation reports from public and private excavators and transmits those reports to all participating members of DigAlert that may have underground facilities at the location of excavation. Members will mark or stake their facilities, provide information, or give clearance to dig (DigAlert 2014). This requirement would apply to this program because any excavation would be required to identify underground utilities before excavation.

Local

■ Fire Regulations

Fire codes are important to all building construction. The project site is not located within an area identified as a moderate, high or very high fire hazard severity on Exhibit S-6 High Fire Hazard Areas of Menifee General Plan. The hills west of the site are designated very high fire hazard severity. According to the text of the City General Plan, the California Department of Forestry and Fire Protection (Cal Fire) has recommended that the urban, low-lying areas in Menifee be classified as having a Moderate Fire Hazard.

The proposed WVWRF site and pipeline conveyance footprint are located within the service area of the Riverside County Fire Department, which provides Fire Protection and Emergency Response Services to the City of Desert Hot Springs. The City of Desert Hot Springs and the Riverside County Fire Department have adopted the California Building Standards Code, which includes the most current version of the California Fire Code and the California Building Code (CBC). The Uniform Fire Code established by the International Fire Code Institute and the Uniform Building Code (UBC) established by the International Conference of Building Officials, both prescribe performance characteristics and materials to be used to achieve acceptable levels of fire protection. The Riverside County Fire Department Chief is authorized and directed to enforce the provisions of the California Fire Code throughout the City of Desert Hot Springs. The California Fire Code contains standards for access to a site, building design, water supply, storage of hazardous materials and brush clearance. The California Building Code prescribes performance characteristics and materials to be used to achieve acceptable levels of fire protection based on building use and occupancy. The construction requirements are a function of building size, purpose, type, materials, location, proximity to other structures, and the type of fire suppression systems installed.

For purposes of this DEIR, whatever fire or building code is current and adopted by the City and County Fire at the time of Project development for the particular issue/regulation being referenced in the DEIR shall be applicable code.

■ County of Riverside Hazardous Waste Management Plan

The Riverside County Department of Environmental Health (DEH) provides programs and services related to protecting public health, safety and the environment. Within the DEH are two divisions: District Environmental Service; and Environmental Protection and Oversight (EPO). EPO is responsible for handling and regulating hazardous materials, land use, water systems, underground storage tanks, solid waste and business emergency plans and is responsible for managing a list of all hazardous waste generators in the County.

According to the City of Desert Hot Springs General Plan, AB 2948 (Chapter 1504, Statutes of 1986) authorizes counties to prepare Hazardous Waste Management Plans (HWMP) in response to the need for safe management of hazardous materials and waste products. The Riverside County HWMP was adopted by the Board of Supervisors and approved by the California Department of Health Services in 1990. The County HWMP identifies the types and amounts of wastes generated in the County and establishes programs for managing these wastes.

AB 2948 (Chapter 1504, Statutes of 1986), commonly known as the Tanner Bill, authorizes counties to prepare HWMP in response to the need for safe management of hazardous materials and waste products. The Riverside County HWMP was adopted by the Board of Supervisors and approved by the California Department of Health Services in 1990. The County HWMP identifies the types and amounts of wastes generated in the County and establishes programs for managing these wastes.

Hazardous Materials Business Emergency Plan

Federal, State and local laws require a Hazardous Materials Business Emergency Plan (HMBEP) to be prepared and submitted by owners and/or operators of facilities that store hazardous materials at or above reportable threshold quantities. In the City of Desert Hot Springs, the County of Riverside is charged with the responsibility to oversee compliance of these laws.

A HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. The intent of an HMBEP is to satisfy federal and State Community Right-To-Know laws and to provide detailed information for use by emergency responders.

Per the California Health and Safety Code (HSC), Chapter 6.95, Section 25500 - 25532, a HMBEP must be submitted by any business that handles a hazardous material or a mixture containing a hazardous material in quantities equal to, or greater than, those outlined below:

- A total weight of 500 pounds or a total volume of 55 gallons.
- 200 cubic feet at standard temperature and pressure for compressed gas.
- A radioactive material handled in quantities for which an emergency plan is required pursuant to Parts 30, 40 or 70 of Chapter 10, Title 10, Code of Federal Regulations (CFR), or equal to or greater than the amounts specified above, whichever amount is less.

A HMBEP must outline the kind of hazards associated with the materials documented in the MSDS that are present at a business, and the following steps that would be taken to help prevent an accidental release of hazardous material: Mitigation, Abatement, Evacuation, Earthquakes, Hazardous Waste Contingency, Unauthorized Release Response Plan, and a Training Program.

■ **General Plan Policies**

The City of Desert Hot Springs General Plan includes the following Policies in the Hazardous Materials section of the Hazards & Toxic Materials Element:

Hazards & Toxic Materials Element: Goal 1

The assured safety of City of Desert Hot Springs residents and visitors through the regulation of the manufacture, transport, use and disposal of toxic and hazardous materials.

Hazards & Toxic Materials Element: Policy 1

Compile and maintain an inventory of all hazardous waste sites, and regulate, to the extent empowered, the delivery, use and storage of hazardous materials within the City limits and General Plan study area.

Hazards & Toxic Materials Element: Policy 2

Pro-actively encourage and facilitate the safe and immediate cleanup of all existing and future hazardous waste sites within the City of Desert Hot Springs and General Plan study area.

Hazards & Toxic Materials Element: Policy 3

Require and facilitate the safe and responsible disposal of all hazardous and/or toxic wastes in compliance with existing federal, state and county regulations.

Hazards & Toxic Materials Element: Policy 4

Coordinate with the Fire and Police Departments to develop a system for roadway management and for alerting emergency and medical facilities to the impending transport of hazardous and toxic materials.

Hazards & Toxic Materials Element: Policy 5

Confer, cooperate and coordinate with the Regional Water Quality Control Board and the Mission Springs Water District to monitor and regulate the use and phased removal of on-site subsurface sewage disposal systems.

Hazards & Toxic Materials Element: Program 5 B

Cooperate with the Mission Springs Water District to help assure that all on-site sewage disposal systems, upon completion of their use, are properly removed from service in accordance with the requirements of the California Regional Water Quality Control Board and other regulating agencies.

Hazards & Toxic Materials Element: Policy 7

Actively oppose any plan or attempt to establish hazardous and toxic waste dumps/landfills or hazardous industrial processes with the potential to adversely affect the community or the City's SOI.

Fire and Police Protection Element: Policy 1

All new and improved developments shall be reviewed for their impact on safety and the provision of police and fire protection services.

The City of Desert Hot Springs General Plan includes the following Policies in the Hazardous Materials section of the Emergency Preparedness Element Goals, Policies and Programs:

Emergency Preparedness Element: Goal 1

A thoroughly coordinated, responsive and effective emergency preparedness implementation plan in the City of Desert Hot Springs, assuring a high degree of readiness to respond to natural and man-made disasters in a manner that maximizes City, County, State and Federal response capabilities.

Emergency Preparedness Element: Policy 1

The City shall maintain and update the Multi-Hazard Functional Plan to keep it current with staffing and technical capabilities of the City and cooperating agencies.

Emergency Preparedness Element: Policy 2

Coordinate with CalTrans and other appropriate agencies for the establishment of emergency evacuation routes and plans to preserve or reestablish the use of Palm Drive, Mission Lakes Boulevard, Pierson Boulevard, Dillon Road, Hacienda Avenue, Interstate-10 and State Highways 62 as emergency evacuation routes.

Emergency Preparedness Element: Policy 6

Cooperate and coordinate with Riverside County, the Mission Springs Water District and other agencies and utilities in the preparation of public information materials to assist residents and business owners in responding to local disasters.

Emergency Preparedness Element: Policy 7

Thoroughly consider and assess vulnerability to natural and man-made disasters when reviewing proposals for the siting and development of critical and essential public/quasi-public facilities.

Emergency Preparedness Element: Policy 8

The City shall take every action to assure the availability of emergency power generators in essential City facilities, and shall encourage the installation of these backup facilities in other important public and private facilities.

The County of Riverside General Plan Safety Element includes the following policies relevant to the Project because the City contracts fire protection services with the County.

S 5.8 Periodically review inter-jurisdictional fire response agreements, and improve fire-fighting resources as recommended in the County Fire Protection Master Plan to keep pace with development, including construction of additional high-rises, mid-rise business parks, increasing numbers of facilities housing immobile populations, and the risk posed by multiple ignitions, to ensure that:

- Fire reporting and response times do not exceed those listed in the County Fire Protection Master Plan identified for each of the development densities described;
- Fire flow requirements (water for fire protection) are consistent with Insurance Service Office recommendations; and
- The planned deployment and height of aerial ladders and other specialized equipment and apparatus are sufficient for the intensity of development desired.

S 7.2 Encourage the utilization of multilingual staff personnel to assist in evacuation and short-term recovery activities, and meeting general community needs. (AI 97)

S 7.3 Require commercial businesses, utilities, and industrial facilities that handle hazardous materials to:

- Install automatic fire and hazardous materials detection, reporting and shut-off devices; and

- Install an alternative communication system in the event power is out or telephone service is saturated following an earthquake.

S 7.4 Use incentives and disincentives to persuade private businesses, consortiums, and neighborhoods to be self-sufficient in an emergency by:

- Maintaining a fire control plan, including an on-site firefighting capability and volunteer fire response teams to respond to and extinguish small fires; and
- Identifying medical personnel or local residents who are capable and certified in first aid and CPR.

S 7.6 Improve management and emergency dissemination of information using portable computers with geographic information systems and disaster-resistant Internet access, to obtain:

- Hazardous Materials Disclosure Program Business Plans regarding the location and type of hazardous materials;
- Real-time information on seismic, geologic, or flood hazards; and
- The locations of high-occupancy, immobile populations, potentially hazardous building structures, utilities and other lifelines.

4.9.4 Thresholds of Significance

The City of Desert Hot Springs utilizes Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- 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;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- 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;
- 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 for people residing or working in the Project area;
- For a Project within the vicinity of a private airstrip, or heliport, would the Project result in a safety hazard for people residing or working in the Project area; and
- Impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan;
- 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 questions posed in the above Initial Study form are included for each topical section to guide the impact analysis and the above significance criteria represent a summary of the

thresholds raised in the Initial Study form. The potential hazards and hazardous materials changes in the environment are addressed in response to the above thresholds in the following analysis.

4.9.5 Potential Impacts

- 1. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or, 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 of the facilities that make up the WVWRP, 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. **Mitigation Measure 4.9-1** is provided below to address this circumstance, and with full implementation of this measure, no residual contamination will remain to harm either humans or the environment.

The second circumstance occurs when unknown contaminants below the ground surface are exposed during construction. An example would be a barrel of hazardous material buried below the ground surface that could be exposed during grading. As in the previous instance, the exposure of such contamination typically occurs over a very limited area and with proper mitigation the potential hazard to humans and the environment can be managed so it will not significantly impact either humans or the environment. **Mitigation Measure 4.9-2** is provided to ensure that measures are in place to address accidental exposure of a contaminated location on the Project site.

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.

Both during construction and once the WWWWF is in operation, the transport of hazardous materials to and from the Project site can result in additional potential for accidental spills, leaks, or other hazards such as fire or explosion. Operation of the WWWWF, which may include transport of solids to the Horton WWTP, would require routine transport, storage, use, and disposal of hazardous materials for purposes of treatment of wastewater and solids (e.g., chlorine, sodium hypochlorite, hydrogen peroxide). The use of hazardous materials and substances during operation would be subject to the federal, state, and local health and safety requirements for the handling, storage, transportation, and disposal of hazardous materials, summarized in the Regulatory Framework. Compliance with these laws would minimize the

potential impacts to the public or environment due to routine transport, storage, and use of hazardous materials. Impacts would be less than significant. Additionally, a HMBEP must be prepared and implemented for the proposed WVWRF as required by the County of Riverside Department of Environmental Health Hazardous Materials Management Branch. The HMBEP would further minimize hazards to human health and the environment from fires, explosions, or an accidental release of hazardous materials into air, soil, surface water, or groundwater. Compliance with all applicable federal, state and local regulations regarding the handling, storage, transportation, and disposal of hazardous materials, and preparation and implementation of the HMBEP would reduce potential impacts to the public or the environment related to the transport, use, or disposal of hazardous materials to less than significant. No mitigation is required to ensure that the transport of hazardous materials/wastes in conjunction with the proposed Project will not cause significant adverse impact to humans or the environment.

As described in the preceding text, an extensive emergency response network exists to address an accidental release of hazardous materials/wastes to the environment. Uses such as the proposed WVWRF must comply with laws and regulations applicable to the materials and hazards specific to wastewater treatment. Air quality hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment have been discussed in Section 4.4 of this Subchapter. With implementation of the recommended mitigation measures, no significant impact would occur.

2. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

The proposed project would provide new sewage connections in the area adjacent to Bubbling Wells Elementary School, which is located at 67501 Camino Campanero, Desert Hot Springs, CA 92240, and is part of GQPP Area M2. Therefore, the development of the proposed sewage conveyance pipeline would be located within one-quarter mile of a school. No other schools are located within one quarter mile of either the pipeline alignment or the WVWRF.

Construction activities would use limited quantities of hazardous materials such as gasoline and diesel fuel. Additionally, MSWD is required to comply with all relevant and applicable federal, State and local laws and regulations that pertain to the release of hazardous materials during construction of proposed facilities. Compliance with all applicable federal, state and local regulations would reduce potential impacts to the public or the environment regarding hazardous waste emissions within one-quarter mile of a school. Impacts would be less than significant.

The proposed sewage collection system would be located below ground within existing road rights-of-way, and therefore would have no potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. As noted above, the WVWRF is located more than one quarter mile from the nearest school. Therefore, operation of the WVWRF would not emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. However, transport of solids from the WVWRF to the Horton WWTP would occur. This transportation effort would traverse through areas located near schools. Additionally, the Horton WWTP is located within one quarter mile of both Bubbling Wells Elementary School and Desert Springs Middle School (66755 Two Bunch Palms Trail, Desert Hot Springs, CA 92240). The Horton WWTP currently complies with applicable federal

and state laws regulating the transport and storage of biosolids. As stated under issue 1 above, hauler 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. Impacts would be less than significant.

- 3. 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?**

WVWRF Site

The Phase 1 evaluation of the WVWRF site was proposed and documented in a report dated December 14, 2018, and prepared by LOR Geotechnical. The Phase 1 included a review of the historical usage of the project site, and a review of relevant documentation provided by various public and private sources (including the client and/or owner of the project site) to identify conditions indicative of releases or threatened releases of hazardous substances, as defined in CERCLA Section 101 (14) U.S.C. § 312.1(c) evaluate the presence or likely existence of recognized environmental conditions, specified by ASTM E1527-2013 as: “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property.”

The Phase 1 preparer(s) reviewed known electronic database listings for possible hazardous waste generating establishments in the vicinity of the Project site, as well as adjacent sites with known environmental concerns. The Phase I ESA is provided as Appendix 6a, Volume 2 to this DEIR. The Phase I ESA was conducted in conformance with the Standard Practice for Environmental Site Assessments: Phase I ESA Process, ASTM E1527-13, and AAI set forth in 40 CFR Part 312. The purpose was to identify recognized environmental conditions (RECs), historical recognized environmental conditions (HRECs), and/or controlled recognized environmental conditions (CRECs) that may be associated with the project site. A REC is defined as the presence or likely presence of any hazardous substance or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of future release to the environment. HERC is defined as a past release of any hazardous substances or petroleum products that has occurred in connection with the property, and has been addressed to the satisfaction of the applicable regulatory authority or meets the unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (i.e., property use restrictions, activity and use limitations, institutional controls, or engineering controls, which would fall under a controlled recognized environmental condition or CREC). This does not include de minimis conditions, that generally, do not present a threat to human health or the environment, and generally would not be the subject of an enforcement action if brought to the attention of the appropriate government agency.

Per ASTM E1527-13 and AAI, User provided information was evaluated with respect to site history, usage, and environmental concerns.

A general review of the physical setting of the project site, including geology and groundwater hydrology, was performed. This review, in part, provides information regarding the potential for groundwater to be contaminated and the potential pathways for contaminant transport.

Historical maps, aerial photographs, and other records and information were researched and examined, as available, to investigate the use of the project site and surrounding area.

As available, person(s) knowledgeable about the project site were interviewed to obtain any known information regarding site usage and potential environmental concerns.

During the Phase I ESA, public regulatory agencies, potentially including environmental, building, etc. were contacted directly or online research was conducted for information regarding permits, underground storage tanks (USTs), hazardous materials incidents, and general information about the project site and surrounding area to ascertain the past uses with respect to environmental concerns.

Federal, state, local, tribal, and proprietary lists and databases were reviewed to ascertain the presence of known environmentally impaired sites on the project site or within the immediate area, and to determine their impact, if any, to the site.

As part of the Phase I ESA, a Vapor Encroachment Screen was conducted to determine if a vapor encroachment condition exists, based on the information obtained during the Phase I ESA.

Regulatory Agency Records Review

The project site was not listed on any of the databases reviewed as having environmental concerns. For records relating to environmental compliance and hazardous materials/waste within the County of Riverside, the County of Riverside Department of Environmental Health (CRDEH) generally is the lead agency. The California Regional Water Quality Control Board, Santa Ana Region (CRWQCB-SAR) or CRDEH may be the lead agency for soil and/or groundwater investigations and remediation. These agencies were contacted, directly or online, for records they may have for the project site and/or nearby properties.

County of Riverside Department of Environmental Health

Requests to review records for the project site, including address ranges on Little Morongo Road and 20th Avenue, were emailed to the CRDEH on November 21, 2018. In records response letters dated December 11, 2018, the CRDEH indicated no records were found.

California Regional Water Quality Control Board – Santa Ana Region

The California State Water Resources Control Board maintains the online GeoTracker database, which includes CRWQCB-SAR records for: 1) cleanup sites, including leaking underground storage tank (LUST) sites, cleanup program sites, military cleanup sites, and DTSC cleanup sites; 2) permitted facilities, including waste discharge requirements sites, permitted USTs, DTSC hazardous waste sites, land disposal sites, irrigated lands regulatory program sites, and oil/gas sites; and 3) other sites, including project sites, non-case information sites, sampling points - public, and field points. This database was searched for records that may pertain to the project site, and none were found. The closest identified site to the project site is Namroud Investments, LLC, a Shell gasoline station, located at 64200 20th Avenue, approximately 0.7 mile west of the project site. This gasoline station is a permitted UST site with no reported leakage.

Environmental Database Review

Additionally, Environmental Database Review (EDR) was contacted to provide an environmental database search for the project site. The database search provides information regarding landfills, USTs, hazardous waste generators, etc., at the project site and surrounding properties in accordance with ASTM Standards and AAI. No mapped sites were found in EDR's search of available government records within the respective search radii. A copy of the EDR database report, which provides a complete list of the federal, state, tribal, and proprietary records searched, is provided in Appendix F of the Phase I Report.

Orphan Summary

The Orphan Summary within the EDR database report, which is a list of all sites whose location is not readily identified (mapped), and may be near the project site, was reviewed. The project site and nearby properties are not listed in the Orphan Summary.

Division of Oil, Gas, and Geothermal Resources

The California Division of Oil, Gas, and Geothermal Resources (DOGGR) maintains a list of all producing and abandoned oil and gas wells within the State of California. We reviewed the online DOGGR Well Finder, which indicates no abandoned or producing geothermal, gas, and/or oil wells have been located within one mile of the project site.

Vapor Encroachment Screen

As part of this Phase I ESA, a Vapor Encroachment Screen (VES) was conducted to determine if a VEC exists, based on the information obtained during the Phase I ESA. A VEC is the presence or likely presence of chemicals of concern (COC) vapors in the subsurface of the target property caused by the release of vapors from contaminated soil or groundwater either on or near the target property (i.e., project site).

A VES, comprised of Tier 1 screening, was conducted for the project site. The VES was conducted in general accordance with the Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, ASTM E2600-15. Although not required to satisfy the requirements of the Phase I ESA under ASTM E1527-13, ASTM E2600-15 was chosen as a methodology to evaluate potential contaminant vapor concerns at or adjoining the project site.

The project site use has historically included vacant land and a fenced compound for a groundwater production well (Well No. 33) and associated concrete suction reservoir, drainage pond, and piping and equipment. The site is located in a largely vacant desert area with an offsite solar panel field to the north and commercial development over 0.25 mile to the west. The project site and surrounding area are predominantly underlain by interbedded silty sands and sands with a silt layer down to approximately 51.5 feet bgs. Based on the local geology and groundwater hydrology, groundwater beneath the project site, anticipated to be greater than 200 feet bgs, is not considered a potential source of vapor into the project site.

Based on the results of Tier 1 screening, utilizing The EDR Radius Map™ Report with GeoCheck® and research of the history of the project site and nearby properties, there are no sites within 0.33 mile with current and/or former potential sources of soil vapor intrusion or encroachment, such as leaking (current or former) USTs, dry cleaners, etc., including sites involving only hydrocarbon chemicals of concern. Based on the results of the VES, Tier 1 screening, a VEC at the project site can be ruled out.

Site Reconnaissance

The Phase 1 Consultant conducted site reconnaissance on December 5, 2018 and on April 4, 2016 to search for conditions indicating an existing release, past release, or threatened release of any hazardous substances or petroleum products into structures on the Project site, or into soil and/or groundwater beneath the Project property.

The project site is approximately 60 acres of rectangular-shaped desert property, most of which is undeveloped and in a relatively natural condition. A 0.5-acre fenced compound for the MSWD Well No. 33 is located near the northeast corner of the project site, situated along the west side of Little Morongo Road and south side of 19th Avenue, both dirt roads. The ground surface topography of the project site is relatively planar with a gentle fall to the south-southeast; however, there are relatively minor onsite undulations, due in part to the reported lack of dust control at offsite commercial developments to the west, creating small sand dunes in the far north end of the project site, and other natural desert processes, including wind and storm water drainage. Onsite vegetation is light to moderately dense, including native desert brush and other lower desert vegetation.

The compound for Well No. 33 is fenced with approximate 6-foot high steel chain-link fencing with three strands of barbed wire and razor wire on top. A locked double gate is located along the east side of the rectangular compound, along Little Morongo Road.

Construction-related materials are present along the south side, inside the compound, including wooden pallets and spools and steel rebar. A small pile of soil is also present near these materials. In the southwest portion of the compound, near the south side of the compound, is a drainage pond, which includes an outlet pipe on the south side to overflow water to the ground south of the compound. At the north and northwest side of the drainage pond are concrete box structures which can receive water from piping associated with Well No. 33 and the concrete suction reservoir, before conveying the water into the drainage pond. Well No. 33 is located approximately 20 feet east-northeast of the drainage pond, marked by a concrete pad on which a turbine pump is situated. The approximate 70,000-gallon concrete suction reservoir is located approximately 25 feet north of Well No. 33. Two booster pumps and associated piping are located approximately 30 feet east-northeast of the concrete suction reservoir. Manhole covers are located near the booster pumps, associated with valves. Near and just north to northwest of the booster pumps is a housing for electrical panels related to the onsite pumps. In the northeast corner of the compound are crash posts and power pole. A concrete pad is located along the east fence line in the northeast corner, formerly planned to support a pad-mounted electrical transformer that was never installed. A sign along the east fence line for the compound shows an address at 19011 Little Morongo Road.

Numerous wooden stakes were noted along Little Morongo Road and 20th Avenue with station numbers written on them, perhaps associated with the installation of MSWD underground water piping along these roads. Several apparent infiltration pipes sticking up above the ground surface were noted at several locations in the south portion, and likely are associated with past geotechnical investigation.

Evidence of utilities were observed along Little Morongo Road, 19th Avenue, and 20th Avenue, and at the fenced compound for Well No. 33, including electric, water, and sewer. No electrical transformers were observed on or immediately near the project site.

Significant amounts of illegally dumped and windblown trash and debris are present at the project site, largely in the south portion, including a water heater, carpet, several tires, green waste, asphalt, concrete, metal, plastic, wood, cardboard, rubber garden hose, roofing materials, glass, ceramic tile, paper, and brick. Around a dozen containers, from 1 quart to 5 gallons in capacity, have associated hardened materials which appear to be primarily paint.

Adjoining Properties

The project site is essentially bordered to the north, east, and south by alignments for 19th Avenue, Little Morongo Road, and 20th Avenue, respectively, along which are dirt roads. However, the Assessor's Parcel Map for the project site suggests the parcel boundaries for the project site extend to the center of these "paper" streets. In nearly all directions, the properties adjoining the project site are similar vacant desert land. Along 19th Avenue to the west, much of the native vegetation has been removed along the alignment for the recently installed underground main sewer line. On the adjacent parcels to the north of the east half of the project site, is a fenced solar field with numerous solar panels and several pad-mounted, electrical transformers.

WVWRF Site Conclusion

No known past or present land usage has posed an environmental impact to the project site. No drums, buckets, or other containers, which might pose an adverse environmental impact to the parcel, were observed. No significant soil staining, chemical odor, or distressed vegetation were noted.

There are no sites listed in environmental regulatory databases within the respective ASTM search radii within 1 mile of the project site. Based on the results of our VES, Tier 1 screening, a VEC at the WVWRF site can be ruled out.

The Phase I ESA has revealed no evidence of RECs, HRECs, or CRECs indicative of releases or threatened releases of hazardous substances on, at, in, or to the WVWRF site; no significant impact is expected and no mitigation is required.

Sewage Conveyance Pipeline Alignment

The hazardous sites analysis undertaken for this project, including records search on the State Water Resources Control Board (SWRCB) GeoTracker, revealed multiple LUST Cleanup Sites within the footprint of the proposed sewage conveyance pipeline alignment. However, there are no open LUST cases exist within 2,500 Feet of the proposed pipeline alignment. GeoTracker records for the surrounding LUST Clean Up sites are provided as Appendix 6b, Volume 2 to this DEIR. The proposed project would include construction of sewage conveyance pipeline. During project construction, it is unlikely that contaminated soil and/or groundwater could be encountered during excavation because each of these sites is considered "Remediated" by the SWRCB; therefore, the potential health threat to construction workers, the public, and the environment is considered minimal. The proximity of these sites to the proposed project will not cause a significant hazard to the public because the location of contamination from these Cleanup Sites is in the soil, which, in each LUST Clean Up site, has been remediated from contamination concerns. Therefore, due to the nature of the Project, which will install pipeline within existing rights-of-way, and will not require earthwork at great depth, the proposed project has no potential to encounter the contaminated soils. Any impacts under this issue are considered less than significant and no mitigation is required.

4. 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 for people residing or working in the Project area?

The Palm Springs International Airport is the closest airport to the proposed WVWRP facilities. Based on a review of Google Maps, the proposed WVWRF site, which is the closest WVWRP facility to the Airport—is located approximately 4 miles north of the Palm Springs International Airport, located in the City of Palm Springs. The proposed WVWRP 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.¹

Based upon the information provided above, the proposed project would not result in a safety hazard for people residing or working in the project area. Therefore, no impacts are anticipated under this issue. No mitigation is required.

5. For a Project within the vicinity of a private airstrip, or heliport, would the Project result in a safety hazard for people residing or working in the Project area?

The proposed project is not located in the vicinity of a private air strip. Therefore, implementation of the WVWRP would not result in a safety hazard for people residing or working in the project area as a result of being located within the vicinity of a private airstrip.

6. Impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?

The City of Desert Hot Springs currently contracts with Riverside County Fire Department for emergency services. The proposed WVWRF site is currently vacant and situated in a rural desert setting with very little development surrounding this site. The proposed WVWRP includes the installation of sewage conveyance pipeline within existing road rights-of-way; once constructed, the roadways would be returned to their original condition or better. Primary roadways within the project footprint that would be used during an emergency or evacuation order would be Little Morongo Road (north-south), Dillon Road (east west), and Indian Canyon Boulevard (north-south). During construction of the WVWRF, a limited potential to interfere with an emergency response or evacuation plan will occur during construction. Truck haul trips would transport construction materials to and from WVWRF site; however, the proposed project would not impact a roadway in a way that would impede emergency evacuations. The truck trips would not require closure of any roadways and would only temporarily slow traffic near the existing treatment facilities. All WVWRF facilities would be contained within the boundaries of the WVWRF site, and control of site access will ensure emergency access is maintained to the site and Project area during construction. Therefore, no impacts related to an emergency evacuation plan would occur.

Operation of the proposed WVWRF would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. The WVWRF consists of a new wastewater treatment facility, storage and discharge infrastructure which, during operation, would not interfere with traffic flows. However, the WVWRF would require a maximum of about 20 new employees to operate. Employee trips would be minimal, such that a significant impact

¹ <http://www.rcaluc.org/Portals/0/PDFGeneral/plan/newplan/18-%20Vol.%201%20Palm%20Springs%20International.pdf>

to traffic on the surrounding roadways would not occur. Impacts related to an adopted emergency plan would be considered less than significant during WVVRF operation.

Development of the WVVRF will require connections to the proposed sewage conveyance pipeline alignment along Little Morongo Road. Additionally, construction of the sewage collection system would interfere with traffic on surrounding roadways due to the lane closure required to install the pipeline alignment. All proposed pipelines would be constructed within existing road rights-of-way. The construction-related impacts, although temporary, could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. However, as further discussed under Subchapter 4.17 Transportation and Traffic, **Mitigation Measure 4.17-1** will be implemented to address the impacts to congestion on surrounding roadways. It is anticipated that, due to the disruption of traffic that will occur as a result of the pipeline installation, mitigation will be required to ensure that a congestion management plan is implemented to prevent a significant impact from occurring. The pipeline installation will require one lane to be closed to complete installation; this will ensure that each roadway can still operate during construction. This necessitates the implementation of a traffic management plan in order to comply with the City of Desert Hot Springs Circulation Plan and County of San Bernardino Circulation Plan; this will ensure adequate circulation within the Desert Hot Springs and Sphere of Influence area. With the implementation of **Mitigation Measure 4.17-1** impacts to an adopted emergency response plan from construction of the proposed sewage collection system would be less than significant.

Following construction, operation of the pipelines would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan as they would be located underground. Therefore, no impacts related to an adopted emergency plan would be occur as a result of operation of the proposed sewage collection system.

7. 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 WVVRF site is located in an area with very little fuel load that would result in a wildfire. The WVVRF site is located in an area on a broad alluvial plain, which is located approximately 4 miles south of the San Jacinto and Santa Rosa Mountains. The ground surface topography of the WVVRF site is relatively planar with a gentle fall to the south-southeast; however, there are relatively minor onsite undulations, creating small sand dunes in the far north end of the project site. Onsite vegetation is light to moderately dense, including native desert brush and other lower desert vegetation. The vegetation on site, as stated above, would not provide the fuel needed to create a wildfire. Furthermore, according to the CALFIRE Riverside County (WEST) Fire Hazard Severity Zone In State Responsibility Area Map, the area where the project is located is not listed as Fire Hazard Severity Zone. Based on this information, implementation of the Project will 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. No impacts are anticipated. No mitigation is required.

4.9.6 Avoidance, Minimization and Mitigation Measures

The following mitigation measures are provided to reduce potential adverse hazards and hazardous material handling impacts identified in the previous analysis of potential impacts due to Project use or exposure to these impacts.

- 4.9-1** *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.*
- 4.9-2** *During grading if an unknown contaminated area is exposed based on field observations by the contractor, soils engineer or City/County inspector, the following actions will be implemented: any contamination found during construction will be reported to the City Building & Safety Department, and Riverside County Site Cleanup Program and all of the sampling or remediation related to the contamination will be conducted under the oversight of the City Building & Safety Department, and Riverside County Site Cleanup Program; construction activities in the immediate area will be immediately stopped; appropriate regulatory agencies will be identified; a qualified professional (industrial hygienist or chemist) shall test the contamination and determine the type of material and define appropriate remediation strategies; 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 actions shall be documented and made available to the appropriate regulatory agencies prior to closure of the contaminated area (a determination of the regulatory agency that the site has been remediated to a threshold that poses no hazard to humans).*

4.9.7 Cumulative Impacts

The Project is not forecast to make a cumulatively considerable contribution to on- of off-site hazards and hazardous material issues. For those potential hazards or hazardous material issues with a potential for direct significant impact, mitigation measures have been provided that can also reduce the Project's contribution to cumulative impacts to a less than significant level.

The MSWD service area is largely somewhat urbanized, though it remains a rural desert community. As the service area continues to develop, the addition of developments could be located on sites that are included on a list of hazardous materials sites and as a result, could create significant hazards to the public or the environment. Since the proposed WVWRP facilities would not be constructed on current hazardous material sites, impacts are not anticipated to be cumulatively considerable and therefore, would not result in a potentially significant cumulative impact. Furthermore, the addition of more development could create hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. However, all cumulative development would be subject to federal, State, and local regulations related to the routine transportation, use, storage, and disposal of hazardous materials. Since the proposed WVWRP would result in less than significant impacts related to accident conditions, the project's

contributions to such impacts would be less than cumulatively considerable and therefore, would result in a less than significant cumulative impact.

4.9.8 Unavoidable Significant Adverse Impacts

The Project will change the use of the mostly vacant WWRF site and create a potential for certain adverse impacts regarding hazards and hazardous material issues both during construction and occupancy. Specific mitigation measures have been identified to reduce potential Project specific and cumulative (direct and indirect) effects to a less than significant impact level for hazards and hazardous material issues. Thus, the Project is not forecast to cause any unavoidable significant adverse hazards or hazardous material impacts.

4.10 HYDROLOGY AND WATER QUALITY

4.10.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue areas of Hydrology (watershed, drainage and flood hazards) and Water Quality from implementation of the proposed West Valley Water Reclamation Program (WVWRP or Program). This section will evaluate the available information about the background hydrology and water quality and forecast the type of impacts that may occur, including identification of mitigation measures that can ensure potential impacts from constructing and operating the various components of the WVWRP.

Mission Springs Water District (MSWD or District) envisions the facilities described in this Section as a key element in the long-term management of the region's groundwater resources, the primary water supply to District customers. The WVWRP is anticipated to be implemented over an extended period of between 3 to 10 years. The WVWRP has three components: construction of a West Valley Water Reclamation Facility (WVWRF), construction of a conveyance system connecting existing sewer areas to the WVWRF, and constructing a collection system for the Groundwater Quality Protection Program (GQPP) Area M2 (to be served by the WVWRF).

The primary purpose of the proposed WVWRP is to expand the District's GQPP to protect and preserve the quality of its most valuable natural resource, groundwater. Specific objectives of the WVWRP are:

- Improve groundwater quality by facilitating the removal of individual septic systems and treating wastewater for constituents of concern.
- Increase the capacity at the Horton Wastewater Treatment Plant by diverting a portion of the existing sewer areas to the proposed West Valley Water Reclamation Facility (WVWRF).
- Maximize future water resources within the MSWD service area by treating the wastewater to a level that it can be directly used to offset potable water demand for landscape irrigation within the District's service area.

The WVWRP consists of the facilities outlined in the *Preliminary Design Report: Mission Springs Water District West Valley Water Reclamation Facility* compiled by AECOM dated December 7, 2018, and the *West Valley Sewer Conveyance System Technical Memorandum* compiled by TKE Engineering in April 9, 2019, provided as Appendix 1a and 1b of Volume 2, Technical Appendices.

No comments specific to this topic were received in response to the Notice of Preparation. No comments were received at the scoping meeting held for the proposed Project.

The following references were used in preparing this Subchapter of the Program Draft Environmental Impact Report (DEIR):

- AECOM, *Technical Memorandum Geotechnical Investigation Prepared for the MSWD Regional Wastewater Treatment Plant Design Project*, November 10, 2017
- City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000
- EnviroLogic Resources, Inc., *Antidegradation Analysis – Phase I Discharges: Proposed West Valley Water Reclamation Facility, Desert Hot Springs, California*, March 13, 2019. (Appendix 7a, Volume 2)

- EnviroLogic Resources, Inc., *Groundwater Model to Evaluate the Potential Impact from the Proposed West Valley Water Reclamation Facility Percolation Basins: West Valley Water Reclamation Facility, Desert Hot Springs, California*, September 7, 2018. (Appendix 7b, Volume 2)

The above references include two technical studies prepared for the proposed Program, provided as Appendix 7a and 7b, Volume 2 of this document: EnviroLogic Resources, Inc. prepared the *Antidegradation Analysis – Phase I Discharges: Proposed West Valley Water Reclamation Facility, Desert Hot Springs, California*, dated March 13, 2019, and also prepared the *Groundwater Model to Evaluate the Potential Impact from the Proposed West Valley Water Reclamation Facility Percolation Basins: West Valley Water Reclamation Facility, Desert Hot Springs, California*, dated September 7, 2018.

These issues pertaining to hydrology and water quality will be discussed below under the following framework:

- Introduction
- Environmental Setting: Hydrology and Water Quality
- WVWRF Percolation Basins
- Antidegradation Analysis – Phase I Discharges
- Thresholds of Significance
- Potential Impacts
- Project-Specific Mitigation Measures
- Cumulative Impact
- Unavoidable Adverse Impacts

4.10.2 Environmental Setting

Annual rainfall is about 4.7-5 inches per year and the evaporation rate is 60-100 inches per year.

4.10.2.1 Groundwater Resources

The lithology under the proposed WVWRF site is Quaternary alluvium deposits that are comprised of sand and gravel mixtures varying in composition and thicknesses and a depth to water of approximately 180 feet below ground surface. The Quaternary alluvium deposits are underlain by a thicker fanglomerate aquifer that provides the MSWD with drinking water supply. The proposed WVWRF is located in the Garnet Hill Subbasin of the Coachella Valley Groundwater Basin. The Coachella Valley lies in the northwestern portion of the Salton Trough, which extends from the Gulf of California in Mexico northwesterly to the Cabazon area. The basin is bounded on the north and east by crystalline bedrock of the San Bernardino and Little San Bernardino Mountains and on the south and west by the crystalline rocks of the Santa Rosa and San Jacinto Mountains. The basin is bounded on the west end of the San Gorgonio Pass groundwater divide, in Beaumont. The southern boundary is the Salton Sea. Geologic faults and structures generally divide the basin into subbasins; these faults limit or impede groundwater flow between the subbasins. The main local subbasins include: San Gorgonio Pass, Whitewater (Indio), Garnet Hill, Mission Creek, and Desert Hot Springs Subbasins (Depicted on Figure 4.10-1).

The primary aquifer system in the Coachella Valley is unconsolidated Pleistocene-Holocene valley fill. Groundwater recharge is primarily runoff from the surrounding mountains, local precipitation, irrigation return, stream flow from the Whitewater River and other rivers and creeks, and from imported Colorado River and Canal Water supplied to spreading grounds throughout the Coachella Valley. Groundwater discharge is to evapotranspiration, underflow to the Salton Sea and Imperial Valley areas, and to pumping wells.

The Garnet Hill Subbasin is located in the Upper Coachella Valley. The Banning Fault and Garnet Hill Fault bound the northern and southern edges of the subbasin, respectively, and are the major groundwater controls. Both faults act to limit groundwater movement as these faults have folded sedimentary deposits, displaced water-bearing deposits, and caused once permeable sediments to become impermeable. To the west, the subbasin is bounded by the San Bernardino Mountains and to the east by the Indio Hills and the Mission Creek Fault.

The Garnet Hills Subbasin is naturally recharged by surface and subsurface flow from the Mission Creek, Dry, and Big Morongo Washes, the Painted Hills, and surrounding mountain drainages. Irrigation return flow and discharges from municipal and individual subsurface wastewater disposal systems also contribute to recharge.

Similar to the Garnet Hill Subbasin, the Mission Creek Subbasin is filled with Holocene and late Pleistocene unconsolidated sediments eroded from the San Bernardino and Little San Bernardino Mountains. There are three significant water-bearing sedimentary deposits recognized in both subbasins: Pleistocene Cabazon Conglomerate, Pleistocene to Holocene Older alluvium, and Recent alluvial deposits. These deposits are generally coarse sand and gravel and poorly sorted alluvial fan deposits that coalesce with one another. The Mission Creek Subbasin is considered an unconfined aquifer with a saturated thickness of 1,200 feet or more and an estimated total storage capacity on the order of 2.6 million acre-feet (Appendix 7b [Krieger & Stewart, 2015]). The depth to crystalline bedrock in the area of the WVWRF is shown on Figure 4.10-1. Natural inflow has been supplemented with artificial recharge of imported water since 2003. Average annual natural inflow to the Mission Creek Subbasin is estimated at 9,340 acre-feet (Appendix 7b [Krieger & Stewart, 2015]).

The depth to groundwater is approximately 200 feet below ground surface according to well soundings and historical data. The depth to water at the Well 33 (located at the WVWRF site) has ranged from 170 to 190 feet below ground surface since 2007.

The effluent disposal basins of the proposed WVWRF are located in the Garnet Hill Subbasin as is Well 33. The Garnet Hill Subbasin is bounded on the north by the Banning Fault and the Mission Creek Subbasin and on the South by the Garnet Hill Fault and the Whitewater River Subbasin.

4.10.2.2 Water Quality

Water quality for the site and vicinity is regulated under the jurisdiction of the Colorado River Basin Regional Water Quality Control Board. Surface water quality maybe impacted by both point source and non-point source discharges of pollutants. Point source discharges are regulated through the National Pollution Discharge Elimination System (NPDES) permitting system. Non-point source pollution is now considered to be the leading cause of water quality impairments in this state, as well as the entire nation. Non-point source pollution is not as readily quantifiable as pollution that is derived from point sources, since it occurs through

numerous diffuse source locations. Stormwater runoff, snowmelt or irrigation water can pick up and transport pollutants as the runoff moves across the land or paved services. These pollutants, incorporated into runoff can transport pollutants on the ground surface and may ultimately be discharged into streams, lakes, the ocean or into groundwater. Urban areas contribute to nonpoint source pollution in surface waters; pollutants associated with these areas include fertilizers, pesticides, fecal matter, and trash.

Water quality in the Coachella Valley is generally good to excellent. Exceptions are primarily limited to perched and semi-perched water tables occurring in the southern portions of the Whitewater River subbasin where on-going crop irrigation has increased total dissolved solids (TDS).

Another more recent impact on area groundwater has been contamination associated with long-term discharge from on-lot septic systems. In areas with high rates of percolation, septic system effluent may not spend adequate time in the soil strata to be cleaned by microbes and filtering and can add nitrates to groundwater. Wastewater contains contaminants, such as nitrogen, bacteria and organic chemicals that may degrade the quality of groundwater and even render it unsuitable for human consumption. Of particular concern is nitrate (NO₃), which can eventually reach the water table even after all other contaminants have broken down or been effectively treated by passage through the soil column.

The City of Desert Hot Springs and surrounding area still have about 5,000 septic tank systems in operation, which are a significant concern for potential groundwater contamination. The proposed WVWRF is intended to mitigate this problem by connecting the Area M2 of MSWD's GQPP to the municipal wastewater collection system, which will allow Area M2 residents to remove individual septic systems, thereby preventing potential septic system groundwater pollution. In addition, the WVWRF will provide adequate treatment capacity to serve areas currently using individual septic systems as they are converted to the municipal sewer system.

While high nitrate levels have been identified elsewhere in the Coachella Valley, MSWD has not been adversely impacted by the use of on-lot septic systems such that MCLs have been exceeded, though MSWD has noticed groundwater degradation that can be attributed to septic system use. To date, none of the common potential contaminants, including human fecal coliform, nitrate, chlorine, or sulfate, have exceeded allowable maximum contaminant levels. The District has become a member of the Groundwater Guardian Program, which seeks to address threats of contamination and to preclude increased threats through a variety of management strategies.

4.10.3 WVWRF Effluent Disposal Basins

A Groundwater Model to Evaluate the Potential Impact from the Proposed West Valley Water Reclamation Facility Percolation Basins: West Valley Water Reclamation Facility, Desert Hot Springs, California report (GME Report) was prepared by EnviroLogic Resources, Inc. for the proposed WVWRF, and is dated September 7, 2018 and provided as Appendix 7a, Volume 2 of this DEIR. The WVWRF is proposed to serve Desert Hot Springs and surrounding communities, and in its proposed configuration will have an initial design treatment capacity of 1.5 million gallons per day (MGD) and a future design treatment capacity of 3.0 MGD. A preliminary groundwater model has been constructed at the request of the MSWD in order to evaluate the potential impact to a nearby well, Well 33, from the operation of the percolation basins at the proposed WVWRF. The model was not designed to specifically evaluate the effect on beneficial

uses of groundwater because very conservative parameters were used to model the flow from percolation ponds.

The purpose of the GME Report is to present the results of a groundwater flow and transport model to evaluate the effects of introducing treated wastewater effluent into the unconfined aquifer in the Garnet Hill Subbasin from the proposed WVWRF.

The groundwater model conservatively simulates the use of two percolation basins, located in the southeast 1/4 of the northeast 1/4 of Section 6, Township 3 South, Range 5 East, San Bernardino Baseline and Meridian. Each percolation basin is created with dimensions of 220' by 220'. The modeled percolation basins are located about 1,800 feet from Well 33, while it is likely that percolation basins about 2,300 feet from Well 33 would be developed first.

The groundwater model is constructed using Visual MODFLOW Build 4.6.0.168. The model uses MODFLOW 2005, a public domain numerical model created by the United States Geologic Survey.

The base maps used for the model are the Desert Hot Springs and Seven Palms USGS 7.5-minute quadrangle topographic maps. The ground elevation is set at an elevation of 800 feet. The basement bedrock is set at a depth of -3,600 feet (Figure 4.10-1). The GME Report details the Model Properties used to determine the impact to Well 33 from the operation of the percolation basins at the proposed WVWRF; this is detailed on pages 10 through 14 of the GEM Report.

4.10.3.1 Groundwater Model Simulation Results

5 YEARS

The volume simulated into the percolation basins from 0 to 5 years is 0.232 MGD. The output of the simulation at the end of 5 years shows that the particle begins to track south and the chemical concentration under the recharge percolation basins begins to enlarge to the south.

7 YEARS

The volume simulated into the percolation basins from 5 to 7 years is 0.597 MGD. The output of the simulation at the end of 7 years shows that the particle begins to track south and the area affected by nitrate under the recharge percolation basins grows larger.

10 YEARS

The volume simulated into the percolation basins from 5 to 10 years is 1.034 MGD. The output of the simulation at the end of 10 years shows that the particle continues to track south and the chemical concentration under the recharge percolation basins enlarges.

14 YEARS

The volume simulated into the percolation basins from 10 to 14 years is 1.243 MGD. The output of the simulation at the end of 14 years shows that the particle continues to track south and the chemical concentration under the recharge percolation basins enlarges toward the south.

20 YEARS

The volume simulated into the percolation basins from 14 to 20 years is 1.5 MGD. The output of the simulation at the end of 20 years shows that the particle continues to track south southeast in a down gradient direction and the chemical concentration under the recharge percolation

basins enlarges toward the south. Appendix B of the GME Report present a zoom in of the area in order to present more identifiable chemical concentrations.

30 YEARS

The volume simulated into the percolation basins from 20 to 30 years is 1.863 MGD. The output of the simulation at the end of 30 years shows that the particle continues to track south southeast in a down gradient direction and the chemical concentration under the recharge percolation basins enlarges toward the south. A northward migration can also be observed in the cross section, although nitrate has not traveled as far as Well 33 by this time.

50 YEARS

The volume simulated into the percolation basins from 30 to 50 years is 3.0 MGD. Continued southward migration of impacted groundwater is observed by 50 years. As shown in a cross section, the water containing the nitrate reaches Well 33 to the north of the WVWRF. The increase in recharge volume to the percolation ponds from the growing WVWRF operations after year 30 makes a significant difference in the groundwater flow system as a result of increased mounding.

100 YEARS

The volume simulated into the percolation basins from 50 to 100 years is 3.0 MGD. The output of the simulation at the end of 100 years shows that the concentration continues to track south southeast in a down gradient direction and the nitrate concentration under the recharge percolation basins enlarges toward the south. Nitrate has reached Well 33 in the output for 50 years and continues to affect Well 33 at the continuing larger rates of discharge to the percolation basins. "Mounding" is created by the recharge of the basins. The drawdown from the well does not appear to sufficiently influence the hydraulic gradient in the vicinity of the percolation basins, the natural hydraulic gradient is the driving force of the direction of groundwater flow and the concentration in the recharge as it is moving away from the well to the south and southeast. However, mounding does occur and continued northward migration of water from the percolation basins is predicted.

4.10.3.2 Groundwater Sensitivity Results

Sensitivity analyses results indicate that a lower storage coefficient limit, 0.1, and a lower limit hydraulic conductivity (horizontal), 1.0 feet/day, result in a slightly lower velocity of the groundwater from the percolation basins. The water from the percolation basins begins an observed northward migration in the output at 30 years and impacts Well 33 in the 50 year output. Using the upper storage limit, 0.2, and the upper hydraulic conductivity, 7.6 feet/day (horizontal), results indicate an increase in the velocity of the impacted groundwater in a downgradient direction and the groundwater from the percolation basins does not impact Well 33. Additional sensitivity using a lower recharge rate in the percolation basins shows that the impacted groundwater did not extend to Well 33.

4.10.3.3 Groundwater Conclusions and Recommendations

Based on the results of groundwater flow and transport modeling output presenting the particle path line tracking and mass transport results for Layer 1 and Layer 2, the treated water discharged to the percolation basins is predicted to potentially impact the production Well 33 after 30 years of operation if hydraulic conductivity is at the lower end of estimated values and recharge rates increase as currently estimated. At higher hydraulic conductivity values, more

southward migration of recharge from the percolation ponds is observed in the modeled results. The model was not designed to specifically evaluate the effect on beneficial uses of groundwater because very conservative parameters were used to model the flow from percolation ponds. The groundwater monitoring system for the WVVWF should be constructed to provide observations of the growth of the groundwater mound beneath the percolation ponds and early warning data to protect Well 33.

4.10.4 Antidegradation Analysis – Phase I Discharges

An *Antidegradation Analysis – Phase I Discharges: Proposed West Valley Water Reclamation Facility, Desert Hot Springs, California* report (ADA Report) was prepared by EnviroLogic Resources, Inc. for the proposed WVVWF, dated March 13, 2019 and provided as Appendix 7b, Volume 2 of this DEIR. The preliminary groundwater model previously developed for WVVWF (EnviroLogic Resources, 2019) has been updated at the request of the MSWD (provided as Appendix 7a, Volume 2 of this DEIR) and is the foundation for this antidegradation analysis.

MSWD is proposing to construct the WVVWF in Desert Hot Springs, Riverside County, California. This new wastewater treatment plant would generate effluent discharges that have been subject to secondary treatment for the first 15 years (Phase I) of WVVWF operation.

Presented in the ADA Report are the results of mass balance analysis and available assimilative capacity evaluation, and updated numerical groundwater flow and transport modeling to evaluate the effects of infiltrating secondary treated effluent from the proposed WVVWF through the vadose zone into the Garnet Hill Subbasin unconfined aquifer. Not all the effluent water discharged to the proposed infiltration basins will discharge to groundwater, with portions lost to evaporation from standing water and/or moisture from the upper layer of surficial, or vadose zone, soils as the basins are allowed to cyclically rest and dry out. Changes to the preliminary groundwater modeling include corrections to recharge rates to adjust for water lost to evaporation, and changes to the Well 33 pumping rate to 700 gpm for 8 hours per day, which simulates the actual operational conditions, change to the hydraulic conductivity, 7.6 ft/day, in the Garnet Hill Subbasin and changes to dispersion. The worst case site physical, chemical, and aquifer parameters utilized in the preliminary modeling were adjusted to reflect likely conditions.

Initial Treatment Capacity

The WVVWF Preliminary Design Report (WVVWF PDR) includes descriptions of target effluent concentrations given the present status of the proposed WVVWF design concept, which includes additional secondary treatment denitrification in comparison with the Horton Wastewater Treatment Plant (WWTP).

**Table 4.10-1
PROPOSED WWRF PHASE I EFFLUENT DESIGN VALUES**

| Contaminants of Concern | Background Range | Citation | Annual Effluent Average | Citation |
|-----------------------------------|---|--|-------------------------|--------------------------|
| TDS (mg/L) | 156-933 217 230 250 300-400 350 480 540 | CVWD GH Well Data *.xls CVSNMP for GH MSWD Well 33 MWH GH MSWD Well 32 MC near GH Study Horton WDR CVSNMP for MC | +400 | PDR/Horton WWTP |
| Total Nitrogen (mg/L) | 2.0-6.0 0.72 | EPA on TN (2013 factsheet) MSWD 2017 CCR for DHS | <10 | PDR/Horton WWTP |
| Nitrate-As Nitrogen (mg/L) | ND ≤ 0.01 0.113-14.3 0.72 3.5-6.0 | MSWD Well 32 CVWD GH Wells Data *.xls MSWD 2017 CCR for DHS CVWD MC Wells Data *.xls | <10 | PDR/Horton WWTP |
| Coliform Bacteria | 0 | MSWD 2017 CCR for DHS | 0 | MCL |
| Chloride (mg/L) | 13 30.1 | Well 32 MSWD 2017 CCR for DHS | +40 | AECOM/Horton WWTP |
| Sulfate (mg/L) | 160.4 180 | MSWD 2017 CCR for DHS MSWD Well 32 | +40 | AECOM/Horton WWTP |

= facility design concentrations, per the DRAFT Preliminary Design Report for the Proposed WWRF (AECOM, 2018) prepared for MSWD

Future Improvements and Treatment Capacity Expansion

Local urbanization will have increased by Year 15, along with the associated revenue for infrastructure, such that Phase II tertiary treatment effluent and discharge volumes will begin to increase above 1.5 MGD. MSWD will initiate Phase II projects to upgrade the WWRF to expand the treatment and discharge capacity in a timely manner, including the ability to divert to an effluent storage reservoir/basin, under the following “abnormal” operating conditions: 1) wet weather secondary effluent flow rate has potential to exceed capacity of tertiary treatment capacity; and 2) when final effluent quality does not meet permit limits and cannot be discharged to the future Mission Creek Spreading Grounds. These Phase II improvements are scheduled to be initiated by Year 15. Phase II improvements will initially include additional facility upgrades for tertiary treatment levels and expansion of the WWRF that will increase the permitted treatment and discharge capacity from 1.5 MGD to 3.0 MGD. A re-evaluation and separate antidegradation analysis may need to be completed in the future to support such best practicable technology improvements/expansion and related permitting.

4.10.4.1 Purpose of the Antidegradation Analysis

The purpose of the antidegradation analysis is intended to address federal and State antidegradation review requirements relating to Phase I discharges at the proposed WWRF. The updated groundwater model is the foundation to support evaluation of: a) whether infiltration of Phase I percolation pond discharges through the vadose zone at the proposed WWRF would cause impacts above aquifer water quality objectives/standards/criterion; b) potential effects of lowered aquifer water quality on beneficial uses; and, c) if allowing incremental degradation of aquifer water quality during Phase I is acceptable given the significant economic and social benefits of the proposed WWRF project in lieu of costly technologies to further minimize aquifer water quality impacts.

The overall objective of this Phase I antidegradation analysis is to evaluate the potential for groundwater quality degradation associated with anticipated WVWRF percolation pond discharges, and determine whether any such degradation would have an unreasonable impact on background/ambient groundwater quality in the remainder of the site groundwater management zone (MZ), the Garnet Hill Subbasin MZ. Where the agreed upon water quality objectives can be shown to be met it would be demonstrated that future beneficial uses are protected.

While numeric groundwater quality criteria for some constituents have not been established for the Coachella Valley Groundwater Basin or its groundwater management zones, water quality objectives have been established in the Colorado River Basin Plan-Region 7. In addition, effluent limits set forth in permitted Waste Discharge Requirements (WDRs) for other local wastewater discharges provided additional background information on WVWRF Phase I secondary treatment effluent discharge type contaminants of concern (COC).

The following effluent COC were identified for further evaluation in this antidegradation analysis:

- Nitrate-as nitrogen
- Total dissolved solids (TDS)
- Total coliform
- Chloride
- Sulfate

A qualitative measure of the assimilative capacity of the aquifer and estimated project water quality impacts was made for the key indicators nitrate-as nitrogen, TDS, chloride and sulfate. Nitrate-as nitrogen, a component of total nitrogen is the COC with an anticipated discharge concentration closest to relevant numerical water quality criterion (WQC), maximum contaminant level (MCL), and water quality objective (WQO) discussed further in Section 3 of the Antidegradation Analysis provided as Appendix 7a, Volume 2 of this DEIR. Nitrate-as nitrogen along with TDS are the primary indicator COC as the TDS concentration trends are a corollary for chloride, and sulfate concentration trends. Baseline concentrations of indicator COC nitrate-as nitrogen, TDS, chloride, and sulfate in the receiving aquifer were compared to groundwater concentration model results for the 15 years of the proposed Phase I discharges. Coliform was not modeled as its WQO is zero. The point of compliance is the aquifer and a future WVWRF site monitoring well network that will be established to verify the nature and degree of COC in the groundwater system and to evaluate for background/ambient groundwater quality effects and potential migration.

Background/ambient ground water quality defines a baseline for evaluation of degradation from known or anticipated beneficial uses, as groundwater quality in the Garnet Hill Subbasin and Mission Creek Subbasin within the site vicinity is very high (i.e. much less than recommended “safe” contaminant levels). Data from Coachella Valley Water District (CVWD) and nearby MSWD wells in the Garnet Hill Subbasin and Mission Creek Subbasin were reviewed. A subbasin-specific comparison of water quality would likely be acceptable to the RWQCB; however, the combined water quality of both subbasins was considered, given the lack of data for certain analytes or locales.

A mass balance analysis and assimilative capacity evaluation shows that mass of COC is conserved for the relevant COC. The existing groundwater flow and transport model was updated to more adequately reflect the alluvial aquifer(s) beneath the proposed MSWD

WVWRF percolation ponds given the site-specific operating conditions of the percolation ponds and nearby MSWD Well 33. These analyses considered the planned operational criteria for the percolation ponds and Well 33 during the first 15 years of operation (Phase I) on the basis of the PDR.

4.10.4.2 Groundwater Quality Objectives

The following table summarizes the relevant groundwater quality criterion:

**Table 4.10-2
GROUNDWATER QUALITY CRITERION AND OBJECTIVES**

| COCs | Garnet Subbasin | | Mission Creek Subbasin | | WVWRF | |
|-----------------------------------|-------------------------|---------------------------|-------------------------|---------------------------|------------------------------------|-------------------------|
| | Water Quality Criterion | Maximum Contaminant Level | Water Quality Criterion | Maximum Contaminant Level | Protective Water Quality Objective | Water Quality Impact |
| Abbreviation | (WQC) | (MCL/RCL) | (WQC) | (MCL/RCL) | (WQO) | (WQI) |
| TDS (mg/L) | 500 ¹ | 1,000 ² | 500 ¹ | 1,000 ² | 500³ | +400⁴ |
| Total Nitrogen (mg/L) | 10 | 10 | 10 | 10 | 10 | +10⁴ |
| Nitrate-As Nitrogen (mg/L) | 10 | 10 | 10 | 10 | 10 | +10⁴ |
| Coliform Bacteria (cfu) | 0 | < 5% | 0 | < 5% | 0 | +0⁴ |
| Chloride (mg/L) | 250 ⁵ | 500 ⁶ | 250 ⁵ | 500 ⁶ | 250 | +40⁴ |
| Sulfate (mg/L) | 250 ⁵ | 500 ⁶ | 250 ⁵ | 500 ⁶ | 250 | +70⁴ |

¹= the 500 mg/L WQO for TDS is the "recommended contaminant level" (RCL) based on the Title 22 CCR "Consumer Acceptance" for municipal beneficial use

²= the 1,000 mg/L WQC for TDS is the "upper contaminant level" based on the Title 22 CCR "Consumer Acceptance" for municipal beneficial use

³= the 500 mg/L WQO for TDS is the selected concentration to maintain available assimilative capacity per the Basin Plan

⁴= the cumulative WQI above background levels associated with the proposed WVWRF discharge per the Preliminary Design Report

⁵= the 250 mg/L secondary MCL for Chloride/Sulfate is a recommended level

⁶= the 500 mg/L primary MCL for Chloride/Sulfate is the upper level

4.10.4.3 Assimilative Capacity

The assimilative capacity of the Garnet Hill Subbasin MZ4 groundwater is the capacity for the aquifer to absorb the proposed Phase I WVWRF secondary treatment effluent discharges without impacting existing or anticipated potential future beneficial groundwater uses. Agricultural use generally has low numerical thresholds for salinity-type parameters, with an assimilative capacity of 460 mg/L identified for TDS in the Coachella Valley Salt and Nutrient Management Plan (CV-SNMP) for the Mission Creek Subbasin MZ3. While a threshold has not been established for Garnet Hill Subbasin MZ4 the health risk-based primary MCL for TDS of 1,000 mg/L is identified as the WQO in the Basin Plan/Colorado River Basin Water Quality Control Plan-Region 7.

Lacking the generally higher intensity agricultural, industrial, or commercial/residential land uses in the Mission Creek Subbasin, the Garnet Hill Subbasin being of higher aquifer water quality is expected to have a higher relative assimilative capacity for the associated COC. For

conservative purposes, the aesthetics-based 500 mg/L secondary MCL for TDS was chosen as the project WQO for the Garnet Hill Subbasin MZ.

The following WQO threshold values of 500 mg/L for TDS, 10 mg/L for total nitrogen/nitrate-as nitrogen, and 250 mg/L for both chloride and sulfate were utilized for an initial comparison of COC mass balance for the proposed Phase I WVWRF discharges.

Available Assimilative Capacity

The TDS 270 mg/L of available assimilative capacity for the Garnet Hill Subbasin MZ4 is simply the difference in the 500 mg/L WQO threshold for TDS and the locally identified ambient/background TDS concentration of 230 mg/L measured in Well 33 within the locality of the proposed WVWRF. Concentrations of chloride and sulfate are included in TDS measurements, though fewer data on these analytes are available for the wells in both the Garnet Hill Subbasin and Mission Creek Subbasin.

**Table 4.10-3
AVAILABLE ASSIMILATIVE CAPACITY (AAC)**

| Subbasin | TDS ¹ (mg/L) | | | Total Nitrogen/Nitrate- as Nitrogen ² (mg/L) | | | Chloride ³ (mg/L) | | | Sulfate ⁴ (mg/L) | | |
|---------------------------------|----------------------------|-------|-------------|--|-------|-------------|---------------------------------|-------|-------------|--------------------------------|-------|-------------|
| | WQO | Back. | AAC | WQO | Back. | AAC | WQO | Back. | AAC | WQO | Back. | AAC |
| Garnet Hill | 500 | 230 | 270 | 10 | 0.72 | 9.28 | 250 | 30 | 220 | 250 | 160 | 90 |
| Project Impact | WQI | | %AAC | WQI | | %AAC | WQI | | %AAC | WQI | | %AAC |
| P1 WVWRF | + 400 | | 148.1% | 8 | | 86.2% | + 40 | | 18.2% | + 70 | | 77.7% |
| GW Modeling ⁵ | | | Yes | | | Yes | | | Yes | | | Yes |

¹ = 1,000 mg/L WQO obtained from Colorado River Basin Water Quality Control Plan-Region 7 and MCLs. 230 mg/L background TDS concentration obtained from (2008) Well 33 data. Project TDS +400 mg/L above background concentrations as anticipated WQI per (2018) MSWD WVWRF Preliminary Design Report.

² = 10 mg/L WQO obtained from Colorado River Basin Water Quality Control Plan-Region 7 and MCLs. 0.72 mg/L background Nitrate-as N concentration obtained from (2018) MSWD 2017 CCR. Project anticipated WQI similar to Horton WWTP effluent characterization in Board Order R7-2014-0049. Total Nitrogen assumed as Nitrate-As Nitrogen

³ = 500 mg/L WQO obtained from Colorado River Basin Water Quality Control Plan-Region 7 and MCLs. 30 mg/L background Chloride concentration obtained from (2018) MSWD 2017 CCR. Project Chloride WQI obtained as difference between monitoring well network data averages at Horton WWTP and cited background concentrations.

⁴ = 500 mg/L WQO obtained from Colorado River Basin Water Quality Control Plan-Region 7 and MCLs. 160 mg/L background Sulfate concentration obtained from (2018) MSWD 2017 CCR. Project Sulfate WQI obtained as difference between monitoring well network data averages at Horton WWTP and cited background concentrations.

⁵ = Project COC using less than the available assimilative capacity were not considered for additional groundwater modeling, as Chloride and Sulfate are covered in the TDS criteria.

For this Phase I antidegradation analysis, if the WVWRF project COC may use greater than 10-percent of available assimilative capacity for a select indicator COC, that COC was further evaluated via groundwater fate and transport modeling (e.g, TDS, nitrate-as nitrogen, chloride, and sulfate).

Mass Balance Via Available Assimilative Capacity

This mass balance comparison is based on estimates of average ambient background concentrations obtained for well locations in the subbasin(s) that may not be reflective of the site-/subbasin-specific conditions, which may result in a lower assimilative capacity of the aquifer for the proposed WVWRF than presented in the Antidegradation Analysis. Uncertainties in assimilative capacity are mitigated by the relative insignificance of the proposed WVWRF COC mass additions and probability of increased dispersion/dilution effects at further distances from the discharge/mounding zone in comparison to the total Garnet Hill Subbasin MZ4 COC balance.

The groundwater fate and transport modeling includes changes relating to the proposed WVWRF Phase I and Well 33 operational conditions and, therefore, is considered more real-world than the results of preliminary modeling efforts or this initial qualitative assimilative capacity evaluation. Phase II site conditions and the resulting effluent discharge quality and location would change drastically as tertiary treatment is applied.

Aquifer water quality will be improved during Phase II WVWRF operations as higher quality tertiary treatment effluent will be discharged, and significant portions of which will be diverted for conveyance to MSWD recycled/reuse water customers. Tertiary treatment effluent will likely be conveyed and made available for infiltrating off-site at the Mission Creek spreading grounds.

The project Phase I discharges are projected to utilize more than 10-percent of the available assimilative capacity of the Garnet Hill Subbasin MZ4 alluvial aquifer(s) for TDS, total nitrogen/nitrate-as nitrogen, chloride, and sulfate with reduced effects as aquifer water quality improves during Phase II operations at the higher tertiary levels of effluent treatment. In addition, phased WVWRF operations will facilitate and support decreasing flows to the existing Horton WWTP to maintain its flow capacity and eventual closing of the Desert Crest WWTP. Decreased effluent discharges at the Horton WWTP will also result in lower total ambient background TDS and nitrogen concentrations being added to aquifers in the adjacent Mission Creek Subbasin MZ3. MSWD long-term plans for wastewater handling in Desert Hot Springs and local community includes significant efforts toward increased tertiary treatment effluent recycling/reuse and infiltration at spreading grounds. It does not appear cost-effective to consider additional treatment technologies for the proposed Phase I WVWRF operations with these long-term offsets that minimize degradation of aquifer water quality to the extent practicable.

Available attenuation capacity or “assimilative capacity” of total nitrogen/nitrate-as nitrogen, chloride, and sulfate in the aquifer is shown to be maintained when the cumulative impacts from the Phase I WVWRF secondary effluent discharges are accounted for, and the associated COC demonstrated to not significantly lower background/ambient groundwater quality in the subbasin or migrate. Adding 555 mg/L in TDS concentrations to the background 230 mg/L in the Garnet Hill Subbasin MZ4 could exceed the projected assimilative capacity of the aquifer by roughly 50-percent.

Groundwater Model Simulations

TDS

Based on the results of the groundwater model, the 0.1 mg/L concentration influence extends approximately 3,550 feet to the southeast of the percolation ponds in layer 1.

Nitrate-as Nitrogen

Based on the results of the groundwater model, the 0.1 mg/L concentration influence extends approximately 2300 feet to the southeast of the percolation ponds in layer 1.

Chloride

Based on the results of the groundwater model, the 0.1 mg/L concentration influence extends approximately 3300 feet to the southeast of the percolation ponds in layer 1.

Sulfate

Based on the results of the groundwater model, the 0.1 mg/L concentration influence extends approximately 3500 feet to the southeast of the percolation ponds in layer 1.

Antidegradation Analysis Conclusion

Based on the results of groundwater flow and transport modeling output presenting the particle path line tracking and mass transport results for Layer 1 and Layer 2, the Phase I secondary treatment effluent discharges to the percolation basins for evaporation and aquifer infiltration are not predicted to significantly degrade background/ambient groundwater quality of the Garnet Hill Subbasin MZ, except for potentially TDS, or to effect existing or anticipated potential future beneficial groundwater uses. Lowering of aquifer water quality at the point of compliance and monitoring well network is not expected to degrade ambient/background aquifer water quality of the MZ or existing beneficial uses within the site vicinity, except for TDS. The TDS threshold concentration of 500 mg/L modeled in the simulations at 15 years extends to about 1,000 feet from the WVWRF percolation ponds, and other COC total nitrogen/nitrate-as nitrogen, chloride, and sulfate, concentrations do not migrate from the site above WQO/MCLs. If additional modeling was completed beyond Year 15, the TDS concentrations above the 500 mg/L threshold would decrease concurrent with the reduction in Phase I flows and discharges as Phase II tertiary treatment is implemented and conveyed for discharge at another location (e.g. future Mission Creek spreading grounds).

Despite the potential for an incremental degradation of groundwater quality beneath the percolation ponds in comparison to established objectives as the proposed WVWRF Phase I mass discharges occur short-term for the identified contaminants, effluent flow and water quality is expected to increase as planned Phase II projects are implemented (i.e., flows increase to beyond 1.5 MGD capacity and tertiary treatment become operational). However, flows directed to percolation ponds are not expected to increase and will likely be reduced as tertiary-treated effluent is directed for reuse. The Phase I proposed WVWRF discharges will not use more than the available assimilative capacity for the Garnet Hill Subbasin MZ4, except for TDS. This is discussed further in Section 4.10.6 Project Impacts below.

4.10.5 Thresholds of Significance

The criteria used to determine the significance of impacts related to Hydrology and Water Quality may be considered potentially significant if the project would:

- a) Violate any water quality standards or waste discharge requirements?
- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?
- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?
- d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?
- e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
- f) Otherwise substantially degrade water quality?

- g) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?
- h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?
- i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?
- j) Result in inundation by seiche or mudflow?

These impact issues are evaluated in Section 4.10.6 Project Impacts.

4.10.5.1 Regulatory Setting

In addition to the impact issues listed above, there are certain regulations that also are used to evaluate the potential significance of impacts on hydrology and water quality. These issues are summarized in the following text.

Federal

Federal Clean Water Act

Pursuant to Section 404 of the Clean Water Act, the United States Army Corps of Engineers (USACE) regulates discharges of dredged and/or fill material into waters of the United States. "Waters of the United States" (WUS) are defined in USACE regulations at 33 C.F.R. Part 328.3(a). Navigable waters of the United States are those WUS that are navigable in the traditional sense. WUS is a broader term than navigable waters of the United States and includes adjacent wetlands and tributaries to navigable waters of the United States and other waters where the degradation or destruction of which could affect interstate or foreign commerce.

The Federal Clean Water Act (CWA) requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet water quality standards. The water bodies that do not meet water quality standards are placed on a list of impaired waters pursuant to the requirements of Section 303(d) of the CWA.

The CWA and the State Porter-Cologne Water Quality Act, require basin-wide planning. Additionally, the National Pollution Discharge Elimination System (NPDES), empowers the regional boards to set discharge standards, and encourages the development of new approaches to water quality management. As part of the NPDES program, a Storm Water Pollution Prevention Plan (SWPPP) must be prepared for construction activities affecting greater than one acre because the discharge of stormwater during construction is considered a non-point source of water pollution.

The City of Desert Hot Springs is located in the Colorado River Basin RWQCB. The Colorado River Basin Region covers approximately 20,000 square miles in the southeastern portion of California, including the Coachella Valley and other areas in Eastern Riverside County, all of Imperial County and parts of San Diego County. It is bounded on the east by the Colorado River; on the south by the Republic of Mexico; and on the west and north by several mountain ranges.

In 1972, the Federal Water Pollution Control Act (Clean Water Act or CWA) was amended to prohibit the discharge of pollutants to waters of the United States unless the discharge complies with a NPDES permit. The CWA focused on tracking point sources, primarily from wastewater treatment facilities and industrial waste dischargers, and required implementation of control

measures to minimize pollutant discharges. The CWA was amended again in 1987, adding Section 402(p), to provide a framework for regulating municipal and industrial storm water discharges. In November 1990, the U.S. Environmental Protection Agency (EPA) published final regulations that establish requirements for specific categories of industries, including construction projects that encompass certain acreage, currently projects of one acre or larger.

National Pollutant Discharge Elimination System (NPDES) Program

As stated above, the NPDES permit program is administered in the State of California by the State Water Resources Control Board (SWRCB) and RWQCBs under the authority of the EPA to control water pollution by regulating point sources that discharge pollutants into Waters of the US. A general NPDES permit covers multiple facilities within a specific activity category such as construction activities. A general permit applies with same or similar conditions to all dischargers covered under the general permit. The proposed program would be covered under the general permits discussed below.

General Dewatering Permit

The SWRCB has issued General Waste Discharge Requirements (WDRs) under Order No. R8-2003-0061, NPDES No. CAG 998001 (Dewatering General Permit) governing non-stormwater construction-related discharges from activities such as dewatering, water line testing, and sprinkler system testing. The discharge requirements include provisions mandating notification, testing, and reporting of dewatering and testing-related discharges. The General WDRs authorize such construction-related discharges so long as all conditions of the permit are fulfilled. This permit would apply to the proposed program for the testing of the effluent pipelines and in the event that shallow perched groundwater is encountered during construction that requires dewatering.

Construction General Permit

The Construction General Permit NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ, NPDES No. CAS000002, Construction General Permit) regulates discharges of pollutants in stormwater associated with construction activity to WUS from construction sites that disturb one or more acres of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface. The permit regulates stormwater discharges associated with construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects (LUP), including installation of water pipelines and other utility lines.

The Construction General Permit requires the development and implementation of a SWPPP that includes specific BMPs designed to prevent pollutants from contacting stormwater and keep all products of erosion from moving offsite into receiving waters. The SWPPP BMPs are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. Routine inspection of all BMPs is required under the provisions of the Construction General Permit. In addition, the SWPPP is required to contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

Industrial General Permit

The Industrial General Permit (IGP) became effective July 1, 2015 (Order No. 2014-0057-DWQ). The IGP covers ten broad categories of industrial activities, including sewage or

wastewater treatment works that store, treat, recycle, and reclaim municipal or domestic sewage with a design flow of one million gallons per day or more, or are required to have an approved pretreatment program under 40 Code of Federal Regulations Part 403. For a sewage treatment facility, the IGP covers both the municipal or domestic sewage being sent to the facility for treatment, and rainwater falling on the facility that must be managed as stormwater. This is because rainwater falling on the facility is routed to the onsite treatment system to prevent contaminants from migrating offsite from the treatment facility.

Municipal Stormwater Permitting (MS4)

The State's Municipal Stormwater Permitting Program regulates stormwater discharges from Municipal Separate Storm Sewer Systems (MS4s). MS4 Permits were issued in two phases. Phase I was initiated in 1990, under which the RWQCBs adopted NPDES stormwater permits for medium (serving between 100,000 and 250,000 people) and large (serving more than 250,000 people) municipalities. As part of the Phase II, the SWRCB adopted a General Permit for small MS4s (serving less than 100,000 people) and non-traditional small MS4s including governmental facilities such as military bases, public campuses, and hospital complexes. The permit also requires permittees to develop Comprehensive Bacteria Reduction Plans (CBRP).

National Flood Insurance Program (NFIP)

The NFIP is a Federal program enabling property owners in participating communities to purchase insurance protection against losses from flooding. This insurance is designed to provide an insurance alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods. Participation in the NFIP is based on an agreement between local communities and the Federal Government that states if a community will adopt and enforce a floodplain management ordinance to reduce future flood risks to new construction in Special Flood Hazard Areas, the Federal Government will make flood insurance available within the community as a financial protection against flood losses.

In support of the NFIP, FEMA identifies flood hazard areas throughout the United States and its territories by producing Flood Hazard Boundary Maps (FHBMs), Flood Insurance Rate Maps (FIRMs), and Flood Boundary & Floodway Maps (FBFMs). Several areas of flood hazards are commonly identified on these maps. One of these areas is the Special Flood Hazard Area (SFHA) or high risk area defined as any land that would be inundated by the 100-year flood — the flood having a 1-percent chance of occurring in any given year (also referred to as the base flood).

The high-risk area standard constitutes a reasonable compromise between the need for building restrictions to minimize potential loss of life and property and the economic benefits to be derived from floodplain development. Development may take place within the SFHAs, provided that development complies with local floodplain management ordinances, which must meet the minimum Federal requirements.

State

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act, also known as the California Water Code, is California's statutory authority for the protection of water quality. Under this act, the State must adopt water quality policies, plans, and objectives that protect the State's waters. The act sets forth the obligations of the SWRCB (or State Board) and RWQCBs (or Regional Boards)

pertaining to the adoption of Basin Plans and establishment of water quality objectives. Unlike the federal CWA, which regulates only surface water, the Porter-Cologne Act regulates both surface water and groundwater and this authority serves as the basis for WDRs issued to municipal sewage treatment facilities by the RWQCBs. The Porter-Cologne Water Quality Act is promulgated in the California Code of Regulations Title 22. Title 22 includes treatment and reuse requirements for recycled water projects throughout California.

Anti-Degradation Policy

The SWRCB's Anti-Degradation Policy, otherwise known as Resolution No. 68-16, sets specific restrictions for surface and groundwater that have higher than the required quality in order to avoid degradation of those water bodies (SWRCB, 2010). Requirements of this policy must be included within all Water Quality Control Plans throughout California (discussed below). Under this policy, actions that would lower the water quality in designated water bodies would only be allowed: if the action would provide a maximum benefit to the people of California, if it will not unreasonably affect beneficial uses, and if it will not lower water quality below applicable standards (SWRCB, 2010).

California Water Code Section 1211

California Water Code section 1211 requires that: (1) the owner of any wastewater treatment plant obtain the approval of the SWRCB before making any change in the point of discharge, place of use, or purpose of use of treated wastewater where changes to the discharge or use of treated wastewater have the potential to decrease the flow in any portion of a watercourse and (2) the SWRCB review the proposed changes pursuant to the provisions of Water Code section 1700; In order to approve the proposed change, the State Water Board must determine that the proposed change will not operate to the injury of any legal user of the water involved.

Local

General Plan Policies

The following are applicable policies from the City of Desert Hot Springs General Plan related to hydrology and water quality:

WATER RESOURCES ELEMENT

Water Resources Goals, Policies and Programs: Goal 1

A dependable long-term supply of clean and healthful domestic water and hot mineral water to meet the needs of all segments of the community.

Water Resources Goals, Policies and Programs: Goal 2

An informed public that respects the City's finite water resource and maximizes protection and conservation efforts for the benefit of the entire community.

Water Resources Goals, Policies and Programs: Policy 1

To the greatest extent practical, require the use of low water consuming, drought tolerant landscape plantings as a means of reducing water demand, and coordinate with DWA, MSWD, and CVWD to strengthen education/public relations programs to inform residents of the full range of water saving techniques available.

Water Resources Goals, Policies and Programs: Program 1 A

Continue implementation of the water conservation-oriented landscape ordinance in compliance with State Assembly Bill 325 (AB 325), by requiring the use of natural and drought resistant planting materials and efficient irrigation systems.

Water Resources Goals, Policies and Programs: Program 1 B

Coordinate and cooperate with DWA, MSWD and CVWD in the continued development of educational materials and programs that encourage and facilitate water conservation throughout the community.

Water Resources Goals, Policies and Programs: Policy 2

The City shall encourage, facilitate and/or require the use of water conserving appliances and fixtures in all new development, as required by state law.

Water Resources Goals, Policies and Programs: Policy 3

The City shall confer and coordinate with the DWA, MSWD and CVWD to enhance groundwater recharge concurrent with prudent flood plain management.

Water Resources Goals, Policies and Programs: Program 3 A

To the extent practical, encourage the efforts of County Flood Control and the Mission Springs Water District to design flood control facilities that also enhance opportunities for groundwater recharge in the Mission Creek, Desert Hot Springs and Garnet Hill sub basins.

Water Resources Goals, Policies and Programs: Program 3 B

Establish regulations and guidelines for the development and maintenance of project-specific onsite retention/detention basins, which implement the NPDES program, enhance groundwater recharge and complement regional flood control facilities.

Water Resources Goals, Policies and Programs: Policy 4

Coordinate with the Desert Water Agency, Mission Springs Water District, Coachella Valley Water District, the California Regional Water Quality Control Board and other appropriate agencies to share information on potential groundwater contaminating sources.

Water Resources Goals, Policies and Programs: Program 4 A

Develop and maintain a system to share records and technical information with DWA, MSWD, CVWD, CRWQCB and other appropriate agencies regarding all sites, which have the potential to contaminate groundwater resources serving the City.

Water Resources Goals, Policies and Programs: Program 4 B

Evaluate all proposed land use and development plans for their potential to create groundwater contamination hazards from point and non-point sources, and confer with other appropriate agencies to assure adequate review.

Water Resources Goals, Policies and Programs: Policy 5

The City shall encourage or require existing and new development to connect to the sewage treatment system of the Mission Springs Water District.

ECONOMIC DEVELOPMENT ELEMENT

Economic Development Goals, Policies and Programs: Goal 1

Continued growth, which assures the maintenance of a revenue, base adequate to support present and future public services and facilities needs.

Economic Development Goals, Policies and Programs: Policy 4

Encourage and promote protection and conservation of domestic water resources and stable and orderly growth in permanent and seasonal households within the community.

Economic Development Goals, Policies and Programs: Program 4 A

Coordinate with the Mission Springs Water District, Desert Water Agency and Coachella Valley Water District to maximize the availability of safe and plentiful domestic water resources, as well as sewage collection and treatment, to allow for continued economic development.

Economic Development Goals, Policies and Programs: Policy 5

Assure sufficient infrastructure and capital facilities in order to maintain existing economic activities and attract new resort, commercial businesses and industries to the City.

WATER, SEWER AND UTILITIES ELEMENT

Water, Sewer and Utilities Goals, Policies and Programs: Goal 1

Economical water, sewer and utility facilities and services, which safely and adequately meet the needs of the City at build out.

Water, Sewer and Utilities Goals, Policies and Programs: Goal 2

A citywide sewage collection and treatment system.

Water, Sewer and Utilities Goals, Policies and Programs: Policy 1

Monitor resource management activities of the MSWD, CVWD and Regional Water Quality Control Board to preserve and protect water resources.

Water, Sewer and Utilities Goals, Policies and Programs: Policy 2

The City shall support the formation of neighborhood-wide Assessment Districts for the purpose of sewer installation.

Water, Sewer and Utilities Goals, Policies and Programs: Program 2 A

The City shall cooperate with MSWD in their efforts to establish and prepare the preliminary engineering estimates for assessment districts for sewer installation.

FLOODING AND HYDROLOGY ELEMENT

Flooding and Hydrology Goals, Policies and Programs: Goal 1

Comprehensive flood control system that assures the protection of lives, property and essential facilities within the community and assures all-weather access to regional roadways.

Flooding and Hydrology Goals, Policies and Programs: Policy 1

Assure that updated and effective Master Drainage Plans are implemented in a timely fashion for the near and long-term protection of the community and its residents.

Flooding and Hydrology Goals, Policies and Programs: Policy 2

Provide for the implementation of drainage controls and improvements that enhance local conditions and are consistent with and complement the Master Drainage Plan.

Flooding and Hydrology Goals, Policies and Programs: Program 2 A

Local regulations and guidelines shall be established and/or updated to direct the management of runoff and provide for local drainage facilities that tie into and maximize the effective use of regional drainage facilities.

Flooding and Hydrology Goals, Policies and Programs: Program 2 B

Adopt or update local drainage policies and development standards that reduce the rate of runoff from developed lands, consistent with capacities of public facilities and local and regional management plans, while providing opportunities for open space enhancement and multi-use.

Flooding and Hydrology Goals, Policies and Programs: Program 2 C

Coordinate and cooperate with the Riverside County Flood Control District, FEMA and other potential management and funding sources to maximize the financial resources brought to bear on flood control project construction.

Flooding and Hydrology Goals, Policies and Programs: Policy 3

City shall cooperate in securing FEMA map amendments recognizing the appropriate re-designation of the 100-year flood plains within the City boundaries and SOI.

Flooding and Hydrology Goals, Policies and Programs: Program 3 A

Working with the Riverside County Flood Control District, the City shall coordinate and cooperate in the filing of appropriate FEMA application materials to incrementally secure amendments to the Flood Insurance Rate Maps for the City, consistent with existing and proposed improvements.

Flooding and Hydrology Goals, Policies and Programs: Policy 4

The mandates set forth in the Emergency Preparedness Element shall, to the extent applicable, be implemented through the Flooding and Hydrology Element and Master Drainage Plan.

Flooding and Hydrology Goals, Policies and Programs: Policy 5

Major drainage facilities, including debris basins and flood control washes and channels, shall be designed to balance their enhancement as wildlife habitat and community open space amenities, consistent with the functional requirements of these facilities.

Flooding and Hydrology Goals, Policies and Programs: Program 5 A

Work closely with the District to assure that design opportunities for enhanced open space and recreation amenities, including habitat enhancement and hiking and equestrian trails, are fully explored and incorporated when designing and constructing channels, debris and detention basins, and other major drainage facilities, to the greatest extent practical.

Flooding and Hydrology Goals, Policies and Programs: Policy 7

All development proposed on lands of one (1) acre or larger shall be required to retain 100 percent of the 100-year storm runoff that is generated by development, on-site.

4.10.6 Project Impacts

4.10.6.1 Analysis of Hydrology and Water Quality Issues

a. Violate any water quality standards or waste discharge requirements?

Construction

Construction of proposed WVWRP components would require the use of heavy equipment and construction-related chemicals, such as fuels, oils, grease, solvents and paints that would be stored in limited quantities onsite. In the absence of proper controls, these construction activities could result in accidental spills or disposal of potentially harmful materials used during construction that could wash into and pollute surface waters or groundwater. Materials that could potentially contaminate the construction area from a spill or leak include diesel fuel, gasoline, lubrication oil, hydraulic fluid, antifreeze, transmission fluid, lubricating grease, and other fluids.

Because the anticipated total disturbance for the WVWRP components would be greater than one acre, MSWD would be required to acquire coverage under the statewide Construction General Permit (CGP) (SWRCB Water Quality Order 2009-0009-DWQ) by complying with the CGP and preparing and implementing a SWPPP. The SWPPP would include best management practices (BMPs) to control erosion, sedimentation, and hazardous materials release from construction sites into surface waters. Compliance with the SWPPP BMPs and other conditions of the CGP and SWPPP would ensure impacts to water quality are less than significant.

Operation

The proposed WVWRP consists of the following Program elements:

- MSWD is proposing to construct the WVWRF in Desert Hot Springs, Riverside County, California. This new wastewater treatment plant would generate effluent discharges that have been subject to secondary treatment for the first 15 years (Phase 1) of WVWRF operation. the District's WVWRF will be installed and begin operation of Phase 1 with design flow of 1.5 MGD.
- Another part of the WVWRP is the construction of a conveyance system connecting existing sewer areas to the WVWRF, and also construction of a collection system for the GQPP Area M2 (to be served by the WVWRF). The Area M-2 collection system will connect 695 parcels to the MSWD sewer system and abate over 405 existing on-site septic systems. This project component envisions the installation of approximately 29,755 lineal feet (LF) of 8-inch gravity sewer (VCP), with short runs of 12-inch to 24-inch gravity sewer. The conveyance line will include a mix of force main and gravity sewer totaling about 16,355 LF.

The development of the WVWRF will not result in any offsite discharge. Initially for Phase I the development of the proposed WVWRF site, secondary effluent is proposed to be discharged to percolation basins at the south end of the site.

Local urbanization will have increased by Year 15, along with the associated revenue for infrastructure, such that Phase II tertiary treatment effluent and discharge volumes will begin to

increase above 1.5 MGD. Phase II improvements will initially include additional facility upgrades for tertiary treatment levels and expansion of the WVWRF that will increase the permitted treatment and discharge capacity from 1.5 MGD to 3.0 MGD. An Antidegradation Analysis Report is provided as Appendix 7a, Volume 2 as discussed above. The antidegradation analysis is intended to address federal and State antidegradation review requirements relating to Phase I discharges at the proposed WVWRF. The antidegradation analysis consists of an evaluation of: a) whether infiltration of Phase I percolation pond discharges through the vadose zone at the proposed WVWRF would cause impacts above aquifer water quality objectives/standards/criterion; b) potential effects of lowered aquifer water quality on beneficial uses; and, c) if allowing incremental degradation of aquifer water quality during Phase I is acceptable given the significant economic and social benefits of the proposed WVWRF project in lieu of costly technologies to further minimize aquifer water quality impacts.

Contaminates of Concern (COCs) Impacts to Water Quality

As stated in the Antidegradation Analysis, available attenuation capacity or “assimilative capacity” of total nitrogen/nitrate-as nitrogen, chloride, and sulfate in the aquifer is shown to be maintained when the cumulative impacts from the Phase I WVWRF secondary effluent discharges are accounted for, and the associated COC demonstrated to not significantly lower background/ambient groundwater quality in the subbasin or migrate. Adding 555 mg/L in TDS concentrations to the background 230 mg/L in the Garnet Hill Subbasin MZ4 could exceed the projected assimilative capacity of the aquifer by roughly 50-percent.

TDS

A recharge concentration of 555 mg/L is simulated. The volume simulated into the percolation basins from 9 to 15 years is 1.243 MGD. The output of the simulation at the end of 15 years shows that the mass continues to track southeast and the chemical concentration under the recharge percolation basins enlarges toward the south. The concentration increases is greatest under the percolation basins. Based on the results of the groundwater model, the 0.1 mg/L concentration influence extends approximately 3,550 feet to the southeast of the percolation ponds in layer 1.

Nitrate-as Nitrogen

A recharge concentration 2.0095 mg/L, the average effluent concentration of the Horton WWTP from January 2007 to December 2016. The output of the simulation at the end of 15 years shows that the mass continues to track southeast and the chemical concentration under the recharge percolation basins enlarges toward the south. The concentration increases is greatest under the percolation basins. Based on the results of the groundwater model, the 0.1 mg/L concentration influence extends approximately 2,300 feet to the southeast of the percolation ponds in layer 1.

Chloride

A recharge chloride concentration of 68 mg/L is simulated. The output of the simulation at the end of 15 years shows that the mass continues to track southeast and the chemical concentration under the recharge percolation basins enlarges toward the south. The concentration increases is greatest under the percolation basins. Based on the results of the groundwater model, the 0.1 mg/L concentration influence extends approximately 3,300 feet to the southeast of the percolation ponds in layer 1.

Sulfate

A recharge sulfate concentration of 199 mg/L is simulated. The output of the simulation at the end of 15 years shows that the mass continues to track southeast and the chemical concentration under the recharge percolation basins enlarges toward the south. The concentration increase is greatest under the percolation basins. Based on the results of the groundwater model, the 0.1 mg/L concentration influence extends approximately 3,500 feet to the southeast of the percolation ponds in layer 1.

COC Water Quality Impacts Conclusion

For Nitrate, Chloride, and Sulfate, the Phase I secondary treatment effluent discharges to the percolation basins for evaporation and aquifer infiltration are not predicted to significantly degrade background/ambient groundwater quality of the Garnet Hill Subbasin MZ, or to affect existing or anticipated potential future beneficial groundwater uses. Overall, lowering aquifer water quality at the point of compliance and monitoring well network is not expected and will not degrade ambient/background aquifer water quality of the MZ or existing beneficial uses within the site vicinity, except for TDS. The proposed WVWRF would consume above the assimilative capacity for TDS of the Garnet Hill Subbasin MZ4, which could result in a significant impact. However, despite the potential for an incremental degradation of groundwater quality beneath the percolation ponds in comparison to established objectives, as the proposed WVWRF Phase I mass discharges occur short-term for the identified contaminants, effluent flow and water quality is expected to increase as planned Phase II projects are implemented (i.e., flows increase to beyond 1.5 MGD capacity and tertiary treatment become operational). However, flows directed to percolation ponds are not expected to increase and will likely be reduced as tertiary-treated effluent is directed for reuse.

The Antidegradation Analysis concluded that it is in the long-term best interest of the people of the State to allow the anticipated Phase I discharge related changes in water quality given the stated public interests as beneficial uses will not to be unreasonably affected.

The Antidegradation Analysis also states that given the potential for degradation of high-quality groundwater quality in the Garnet Hill Subbasin MZ4, periodic groundwater monitoring and analyses should be performed to verify the modeling results and continuing achievements of the established WQOs.

Reviews of groundwater monitoring and sampling results should be completed every 5 years based on data obtained from WVWRF site monitoring wells, to verify model inputs to the groundwater fate and transport modeling and relevant antidegradation analysis extrapolations from years of data for the similarly sized and operated MSWD Horton WWTP at a similar hydrogeologic location in the site vicinity. This shall be implemented as a mitigation measure to ensure that monitoring occurs, which will ensure that impacts to water quality in the area are below significance thresholds.

Additionally, two years prior to WVWRF startup, a Groundwater Monitoring Well Network Work Plan should be developed and submitted for Regional Board review with info on monitoring well locations and specifications. One of the groundwater monitoring wells should be placed as a sentinel well between the percolation ponds and MSWD Well 33. At least three monitoring wells should be installed, and the groundwater monitoring and sampling program initiated at least one year prior to WVWRF startup to establish baseline groundwater quality for future comparisons, including statistical analyses to demonstrate representative COC concentrations:

- A minimum of one upgradient and two down-gradient wells should be installed;
- Groundwater monitoring well network COC to be sampled and evaluated: TDS, Total Nitrogen/Nitrate-As Nitrogen, Chloride, Sulfate, and Total Coliform;
- Within 6-months of Regional Board Order: Submit Groundwater Monitoring Network Work Plan; and
- After Startup: Technical Report with descriptions present conditions, adequacy of monitoring effects of the discharge from the disposal ponds on groundwater, including necessary figures/maps tables, appendices, and appropriate statistical analysis for relevant COC (TDS, and total nitrogen/nitrate-as nitrogen) and any recommended changes to monitoring locations, frequency, protocol, or QA/QC.

It is possible that the Regional Board may request additional work, or other options that would be acceptable toward meeting WQOs/MCLs, potentially relating to the following:

Effluent Limit Feasibility Study

The first 6-months to 1-year of actual WWRF effluent quality and groundwater monitoring well data after startup could be used to perform a cost-benefit analysis of effluent TDS/salt removal alternatives that may be appropriate in future. If it's deemed necessary depending on the results, complete an influent TDS study.

Influent TDS Study

A Influent TDS Study may be warranted to evaluate the proposed incremental increase in TDS/salt as WQI above source water background levels and the impact that such discharge could have on the beneficial uses of the receiving aquifer: characterize influent TDS/salt and domestic/commercial sources within sewage collection system, alternatives for minimizing TDS/salt contribution from identified sources with costs comparison in dollars per ton to remove salt from influent (MSWD may need to work toward reducing combined the proposed WWRF influent and effluent TDS/salt concentrations).

MSWD may also have to consider practicality of achieving a reduced incremental TDS increase, whether a 460 mg/L assimilative capacity measure for lower quality Mission Creek Subbasin is relevant to Garnet Hill Subbasin proposed for TDS at 500 mg/L, and if the increase is not practicable, MSWD would have to show 1) impacts of proposed TDS/salt input each year in terms of tons per year and concentration; 2) cost per ton of TDS/salt removed for each alternative; 3) capability of minimizing TDS/salt discharges; 4) proposed values for the practical incremental increase; and, 5) justification for the proposed practical incremental increased values.

Prohibition of Well Installations

An interim local (city/county/district) regulation/ordinance could be set forth to prevent the installation of additional wells in a specified area of the Garnet Hills Subbasin MZ as a form of administrative/governmental control. As a potable municipal supply would be alternately be available for relevant properties, an interim ordinance would serve as an assurance on providing for aquifer quality for the known and anticipated beneficial groundwater uses during the time of Phase I WWRF discharges. A review and re-evaluation of the needs for continuing any such prohibition should be completed as the Phase II tertiary treatment discharges are planned.

Nitrogen Removal in Shallow Percolation Ponds

Rafts of floating plants may be placed and maintained in percolation ponds to help limit the amount of nitrogen available for infiltration. These rafts would contain heat/water-philic plants appropriate for the site conditions that would utilize nutrients in the effluent for growth.

Groundwater Modeling Impacts

A Groundwater Model Report was prepared for the proposed WVWRF, and is provided as Appendix 7b, Volume 2 to this DEIR. The Groundwater Model Report determined that, based on the results of groundwater flow and transport modeling output presenting the particle path line tracking and mass transport results for Layer 1 and Layer 2, the treated water discharged to the percolation basins is predicted to potentially impact the production Well 33 after 30 years of operation if hydraulic conductivity is at the lower end of estimated values and recharge rates increase as currently estimated. At higher hydraulic conductivity values, more southward migration of recharge from the percolation ponds is observed in the modeled results. Similar to the conclusion of the Antidegradation Analysis—which uses the Groundwater Model Report as the basis from which to draw conclusions—the Groundwater Model Report concludes that a groundwater monitoring system for the WVWRF should be constructed to provide observations of the growth of the groundwater mound beneath the percolation ponds and early warning data to protect Well 33. Implementation of this groundwater monitoring system is ensured through mitigation measures provided below in this chapter. With implementation of the groundwater monitoring system, impacts to the water quality of Well 33 would be minimized because measures to prevent significant degradation of water quality would be taken in the event that degradation of water quality is observed through monitoring.

Impact Conclusion

Compliance with NPDES discharge regulations with approval from the Colorado River Basin RWQCB would ensure that the proposed WVWRP would not result in significant impacts to surface or groundwater quality during operation of the new WVWRF. Based on the above factors that reach a finding of consistency with antidegradation policies, with mitigation, the proposed project can be implemented in a manner consistent with anticipated waste discharge requirements and without violating any water quality standards.

- b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?)**

The proposed WVWRP would develop a new wastewater treatment plant that would treat effluent to secondary treatment levels (i.e. the WVWRF will not, during Phase I, treat effluent to tertiary treatment levels resulting in the generation of recycled water), and would create a new sewage conveyance pipeline alignment connecting the Dos Palmas Lift Station and the GQPP Area M2 to the new WVWRF. Implementation of the proposed Project will not deplete groundwater supplies such that a substantial effect to the water availability for existing or planned land uses or biological resources would occur. The development of the WVWRF would develop approximately 43,000 SF of the currently undeveloped 60-acre site. Development of the proposed WVWRF site would eliminate some of the pervious area that currently exists on site, in the amount of approximately 1/60th of the overall 60-acre site, which is generally not considered significant.

MSWD, which is both the Lead Agency for the proposed WVWRP and which will supply potable water to the proposed WVWRP facilities, supplies its service area solely using groundwater at this time. The operation of the proposed WVWRF will not require a significant amount of groundwater in order to operate because effluent will be used for irrigation and maintenance at the treatment plants. As discussed in detail under Chapter 4.18, Utilities and Service Systems, it is assumed that the proposed WVWRF will require about 5.52-acre feet per year (AFY) of potable water to serve the project. In 2015, institutional facilities such as the proposed WVWRF demanded 984 AFY of potable water; the demand for potable water in 2020 is anticipated to grow to 1,189 AFY. As such, given that the anticipated demand for potable water in this sector is anticipated to grow between 2015 and 2020, the development of the WVWRF—which is anticipated to be completed by 2020—and the subsequent demand for potable water that the operation of the facility will require, would be well within MSWD's planned supply and demand projections for potable water in 2020.

The proposed WVWRP includes the construction of a sewer conveyance pipeline that will connect the GQPP Area M2, which would allow individuals in Area M2 who currently utilize a septic system to hire a contractor to dig up the lids to the septic tank, pump out the tank, and decommission the tank in accordance with SWRCB guidelines. In addition to connecting GQPP Area M2, the WVWRP will develop a conveyance pipeline to connect to the Dos Palmas Lift Station and to the proposed WVWRF. Construction of the new conveyance pipeline alignment would require approximately 10,000 gallons of potable water each day for a maximum of about 100 days, which equates to the construction of the conveyance pipeline requiring about 3 acre feet of water to support the pipeline installation within existing roadways. This amount is considered nominal when compared to the availability of supply from MSWD.

Additionally, if each of the 20 new employees that would support the operation of the WVWRF was to be a new resident within MSWD's service area, the project would demand of about 3,470 gallons per day of potable water, or about 3.89 AFY. According to the data presented above, in 2015, the supply and demand for potable water within MSWD's service area was 7,252 AFY, and the supply and demand for potable water within MSWD's service area is anticipated to be 8,430 AFY in 2020, which leaves plenty of available supply to accommodate the potential for the proposed WVWRP to demand 3.89 AFY of potable water.

As stated under item "a" above, the proposed project has a potential to result in a change in the groundwater water quality underlying the proposed WVWRF site without the proposed mitigation measures. However, this change will not substantially deplete groundwater, or interfere substantially with groundwater recharge creating a deficit in aquifer volume or lowering the groundwater table. The proposed WVWRP will result in use of minimal groundwater in support of both construction and operation of the proposed WVWRP facilities, but the amount in which groundwater is required would not result in a significant impact because it is well within MSWD's planned supply and demand for the future. Therefore, impacts under this issue are considered less than significant.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

The proposed WVWRP facilities include the development of the WVWRF and the proposed conveyance pipeline within existing road rights-of-ways. The installation of the proposed pipeline would occur within existing road rights-of-way that would be returned to their original or

better condition once the installation is complete, therefore, given that the proposed pipeline would not substantially alter the drainage of the footprint in which it will be installed, it is not anticipated that the development of the conveyance pipeline alignment result in substantial erosion or siltation.

The development of the proposed WVWRF would alter the proposed site in which it will be developed by constructing the various components that make up the WVWRF. The process of installing the pipeline alignment and the WVWRF would result in construction activities that could result in erosion and sedimentation. The SWRCB adopted the General Construction Activity Storm Water NPDES (National Pollutant Discharge Elimination System General Permit) in 1992 thereby regulating construction activity that would result in the disturbance of 5 acres or more. Water Quality Order 99-08-DWQ lowered threshold of regulated activity to one acre in 2002. The proposed WVWRP facilities would impact more than one acre of land and therefore, must file a Notice of Intent (NOI) with the SWRCB prior to initiation of construction activity. The General Permit requires that the project developer file a NOI with the SWRCB and authorizes discharge of stormwater associated with construction given implementation of a SWPPP that eliminates or reduces non-stormwater discharges to storm sewer systems and other "Waters" as defined by the CWA.

The General Permit prohibits the discharge of material other than stormwater and all discharges that contain hazardous substances in excess of reportable quantities established at 40 Code of Federal Regulations 117.3 or CFR 302.4, unless a separate NPDES permit has been issued to regulate those discharges. Regardless of the need for a construction NPDES permit, the project must implement "best management practices" (BMP) as part of the SWPPP to reduce the potential for soil erosion or pollutants leaving a construction site and adversely affecting surface water.

The Stormwater NPDES Permits require implementation of a Standard Urban Storm Water Mitigation Plan (SUSMP)/Water Quality Management Plan (WQMP) with design standards for BMPs, adopted in 2002. The BMPs to infiltrate and/or treat stormwater pollution are required to be incorporated into the design phase of new development and redevelopment in order to minimize the discharge of pollutants of concern. Such design standards ensure that stormwater runoff is managed for water quality and quantity concerns. Mitigation measures must be implemented to reduce the effects of potential impacts from stormwater pollution to a less than significant level. The intent of these measures is to accomplish the following: capture upstream sheet flow and manage it so these flows will be retained or detained on the facilities sites, or alternatively the flows would discharge downstream to an existing local/regional drainage facility with sufficient capacity to handle such flows without causing downstream flooding, erosion or sedimentation; and capture increased runoff generated from the facility sites and retain or detain these flows so that discharges will not cause or contribute substantially to downstream flood hazards, treat the discharges to ensure that man-made pollutants are not incorporated into the downstream discharges, and discharge the onsite flows into existing local/regional drainage facility with sufficient capacity to handle such flows without causing downstream flooding, erosion or sedimentation.

Because the whole of the WVWRP project site has a shallow slope, the modifications to surface flows has a potential to concentrate flows downstream and cause downstream erosion and sedimentation. This potential impact is caused by the following change in the landscape: the impervious surfaces generate more runoff than the natural soils. As might be expected, the greater the rainfall, the greater the potential for the proposed project facilities to cause

significant erosion and sedimentation. Due to the large size of the WVWRF, the proposed site will require substantial drainage management to ensure that runoff remains on site and flows to the appropriate area. It is anticipated that much of the drainage on site will be directed to the proposed percolation basins, which will be developed to accommodate anticipated runoff volumes on site. Otherwise, because the proposed project site is currently undeveloped—with the exception of Well 33 at the northeastern corner of the site—much of the runoff is currently percolated on the site; given that about 1/60th of the project site will be developed with impervious surfaces once the WVWRF is constructed, it is anticipated that runoff that is not get direct to the percolation ponds would percolate on site as it does at present. Ultimately, the onsite drainage will capture the incremental increase in runoff from the project site associated with project development. However, where a specific design is unavailable for evaluation and a potential exists for significant disruption in the local drainage system, the evaluation shifts to establishment of design requirements for the drainage system, expressed as mitigation measures, in order to control a potential adverse impact to a less than significant impact level. These potential impacts and design requirements can be divided into those potential impacts during construction (short-term drainage design measures) and after construction (long-term drainage design measures). Mitigation measures are provided in the Mitigation Measures section below. With implementation of these design requirements on both construction activities/disturbances and the operation of the WVWRP facilities, the changes in the existing site drainage systems can be controlled to prevent significant downstream erosion and sedimentation.

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

Please refer to the discussion under Issue “c” above. None of the WVWRP facilities footprints are located in an area that contains a stream or river. The proposed WVWRF is located approximately 700 feet to the east of Mission Creek, and therefore, given the distance from the WVWRF site from Mission Creek, the development of the proposed WVWRF would not alter the course of Mission Creek. The proposed WVWRP includes the construction of a pipeline that will cross Mission Creek at Dillon Road. Dillon Road often floods during strong rainfall events that cause flash flooding in the City and surrounding area. It is anticipated that the design of the pipeline will not interfere with the course of Mission Creek because the alignment will not interfere with the culvert that traverses Mission Creek allowing average Creek flows to flow beneath Dillon Road. The general project area slopes slightly from north to south, and are subject to sheet flow, not concentrated surface runoff. The proposed WVWRP facilities will alter local drainage systems and increase runoff from the WVWRF site. A potential for increased flooding exists, but mitigation measures described in Issue “c” above and presented in the Mitigation Measure section below will control runoff from the WVWRP facilities in a manner to prevent the proposed project from causing or contributing to significant downstream flood hazards.

e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

For the reasons outlined under Issues c. and d. above, the proposed project will not cause or contribute surface runoff that can exceed the capacity of existing or planned stormwater drainage systems. Further, mitigation requirements to control both short- and long-term sources of water pollution or to treat the stormwater discharged from the project site will ensure that the proposed project is not a substantial source of polluted runoff.

The proposed Program would develop a wastewater treatment facility and associated infrastructure that would accept a portion of MSWD's existing wastewater flows, as well as new members of MSWD's service area that would be served through the implementation of this Program. Because of the type of treatment facility and the regulations in place that the proposed WVWRF must adhere to, the potential for an accidental spill that could be discharged to the surrounding environment is considered to be negligible. If an accidental spill occurs within the new WVWRF, the delivery of wastewater flows to the facility can be stopped. This management option ensures that the wastewater treated at the WVWRF will not become a substantial additional source of polluted runoff at the new WVWRF site.

f. Otherwise substantially degrade water quality?

All of the potential sources of pollution and water quality degradation have been evaluated in the previous sections of this Subchapter. Limited degradation of groundwater quality from increased TDS concentrations at the percolation sites has been identified, but based on the whole of the antidegradation analysis provided under Issue "a" above and as discussed in the Appendices to this Chapter (Appendix 7a & 7b, Volume 2 of this DEIR), the extent of groundwater quality degradation was determined to a less than significant impact, with the implementation of mitigation measures. Future construction and operation impacts on surface water quality will be controlled through implementation of mandatory best management practices that is required to meet regulatory requirements through the implementation of a SWPPP during short-term construction activities and a WQMP during the long-term operations of the WVWRF and associated WVWRP facilities. No other activities have been identified in conjunction with the proposed project that could otherwise substantially degrade water quality.

g. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The proposed project does not include any residential housing. Therefore, it has no potential to expose any residential housing to a 100-year flood hazard zone.

h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The proposed WVWRP footprint traverses through several flood zones designated by the FEMA FIRM, and also traverses through two FEMA FIRM Panels: 06065C0895G and 06065C0905G. The proposed conveyance pipeline alignment footprint traverses through Zone X "0.2% Annual Change Flood Hazard," Zone AO "Special Flood Hazard Areas, Depth 3 Feet, Velocity 8 Feet/Second," and Zone AO "Special Flood Hazard Areas, Depth 1 Feet, Velocity 6 Feet/Second" (Figure 4.10-2). According to FEMA Zone AO is defined as, "Areas subject to inundation by 1-percent-annual-chance shallow flooding...Some Zone AO have been designated in areas with high flood velocities such as alluvial fans and washes. Communities are encouraged to adopt more restrictive requirements for these areas."¹ The proposed WVWRF site is located within an area designated as Zone X "0.2% Annual Change Flood Hazard" (Figure 4.10-3).

Given the above information, the proposed development of the WVWRF site would not place structures within a 100-year flood hazard, and therefore the WVWRF would not impede or redirect flood flows. However, the proposed conveyance pipeline would traverse through areas

¹<https://www.fema.gov/zone-ao>

that are located within a 100-year flood hazard. The proposed sewage conveyance pipeline will be located underground; underground pipelines within floodplains are common and are often constructed further underground to avoid future negative impacts in the event of flood events. As previously stated, no structures would be placed within the 100-year flood hazard. Therefore, given that pipelines are generally not susceptible to significant adverse effects associated with flooding, and though damage to pipelines can occur, a pipeline can be repaired and placed back into operation with no loss of human life. Additionally, once constructed, the roadways within which the pipeline will be installed will be returned to their original condition, and therefore the project would not impede or redirect flows. Therefore, construction of the sewage conveyance pipeline is not anticipated to cause a significant impact that would place structures within a 100-year flood hazard area or could impede or redirect flood flows. Impacts under this issue are considered less than significant and no mitigation is required.

i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Impacts associated with flooding due to development of the WVWRP are discussed above. The WVWRP footprint is not located near a levee or a dam that would increase impacts associated with flooding if failure occurred. Therefore, the drainage plan developed for the WVWRP—specifically the development of the WVWRF site—will be designed in accordance with the City's Municipal Code and drainage improvements that are developed on the project site will contain the anticipated storm flows onsite. Impacts associated with flooding will be less than significant.

j. Inundation by seiche, tsunami, or mudflow?

Based on a review of the City of Desert Hot Springs General Plan, it is not anticipated that any of the components of the WVWRP will be exposed to inundation hazards associated with seiche, tsunami, or mudflow once constructed. The project site is not near any large bodies of water, including above-ground storage tanks, so impacts associated with seiche or tsunami are not anticipated to occur; additionally, the WVWRP footprint is not located near the surrounding mountains and won't be impacted by potential mudflows. Therefore, not impacts are anticipated under this issue.

4.10.7 Avoidance, Minimization and Mitigation Measures

Based on the analysis in Section 4.10.4 of this Subchapter, 4.10 Hydrology and Water Quality impacts, the following mitigation measures are recommended for implementation. Note that the discussion of regulatory requirements for monitoring groundwater in the vicinity of the proposed percolation basins identified required monitoring and these requirements are reiterated in this discussion of mitigation measures.

- 4.10-1** *The construction contractor shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices that will be implemented to prevent construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving offsite. The SWPPP shall be developed with the goal of achieving a reduction in pollutants both during and following construction to control urban runoff to the maximum extent practicable based on available, feasible best management practices. The SWPPP and the monitoring program for the construction projects shall be consistent with the requirements of the latest version of the State's General Construction Activity Storm Water Permit and NPDES for projects within Riverside County.*

The following items should be included in the SWPPP:

- The length of trenches which can be left open at any given time should 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.*
- Backfill material should not be stored in areas which are subject to the erosive flows of water.*
- Measures such as the use of straw bales, sandbags, silt fencing or detention basins shall be used to capture and hold eroded material for future cleanup.*
- Rainfall will be prevented from entering material and waste storage areas and pollution-laden surfaces.*
- Construction-related contaminants will be prevented from leaving the site and polluting waterways.*
- Replanting and hydroseeding of native vegetation will be implemented to reduce slope erosion and filter runoff.*
- A spill prevention control and remediation plan to control release of hazardous substances.*

4.10-2 *The site design for WVWRP facilities shall prepare and implement a Water Quality Management Plan (WQMP) which specifies Best Management Practices that will be implemented to prevent long-term surface runoff from discharge of pollutants from sites on which construction has been completed. The WQMP shall be developed with the goal of achieving a reduction in pollutants following construction to control urban runoff pollution to the maximum extent practicable based on available, feasible best management practices.*

4.10-3 *For long-term mitigation of site disturbances at the WVWRF site, all areas not covered by structures shall be covered with hardscape (concrete, asphalt, gravel, etc.), native vegetation and/or man-made landscape areas (for example, grass). Revegetated or landscaped areas shall provide sufficient cover to ensure that, after a two year period, erosion will not occur from concentrated flows (rills, gully, etc.) and sediment transport will be minimal as part of sheet flows.*

4.10-4 *Within the WVWRF and Conveyance Pipeline Alignments associated with the WVWRP that will impact more than one acre, surface runoff from upstream shall be collected and discharged in a manner downstream of the site that does not increase downstream flood hazards. Onsite surface runoff shall be collected and retained (for use onsite) or detained and percolated into the ground on the site such that site development results in no net increase in offsite stormwater flows. Detainment shall be achieved through Low Impact Development techniques whenever possible, and shall include techniques that remove the majority of urban storm runoff pollutants, such as petroleum products and sediment. The purpose of this measure is to remove the onsite contribution to cumulative urban storm runoff and ensure the discharge from the sites is treated to reduce contributions of urban pollutants to downstream flows and to groundwater. If it is not possible to eliminate stormwater flows from leaving a site, the facility shall not be constructed until a drainage study has been conducted that verifies that there will be no adverse impacts to downstream stormwater management from implementation of the site development.*

The following measures are identified mitigation measures to be brought forward if the modeling analysis provided in the Antidegradation Analysis does not reflect actual future conditions.

- 4.10-5** *Prior to the WVWRF startup, a Groundwater Monitoring Well Network Plan shall be developed and submitted to the Regional Board for review with information on monitoring well locations and specifications. One groundwater monitoring wells should be placed as a sentinel well between the percolation ponds and MSWD Well 33. At least three monitoring wells should be installed, and the groundwater monitoring and sampling program initiated at least one year prior to WVWRF startup to establish baseline groundwater quality for future comparisons, including statistical analyses to demonstrate representative constituents of concern (COC) concentrations:*
- A minimum of one upgradient and two down-gradient wells should be installed;*

- *Groundwater monitoring well network COC to be sampled and evaluated: Total Dissolved Solids (TDS), Total Nitrogen/Nitrate-As Nitrogen, Chloride, Sulfate, and Total Coliform;*
- *Within 6-months of Regional Board Order: Submit Groundwater Monitoring Network Work Plan; and*
- *After Startup: Technical Report with descriptions present conditions, adequacy of monitoring effects of the discharge from the disposal ponds on groundwater, including necessary figures/maps tables, appendices, and appropriate statistical analysis for relevant COC (TDS, and total nitrogen/nitrate-as nitrogen) and any recommended changes to monitoring locations, frequency, protocol, or quality assurance/quality control (QA/QC).*

4.10-6 *If MSWD observes the water quality at MSWD Well 33 degrading during monitoring efforts outlined in MM 4.10-5, a Remediation Plan shall be prepared to ensure that the degradation does not substantially exceed the forecast in the antidegradation analysis.*

The Remediation Plan shall demonstrate that the degradation will not exceed the antidegradation forecast based on implementing the additional treatment measures to stay within the forecast. This Remediation Plan shall be reviewed by the Colorado River Basin Regional Water Quality Control Board.

As previously stated, it is possible that the Regional Board may request additional work, or other options that would be acceptable toward meeting WQOs/MCLs. Mitigation to ensure that the additional work and other options shall be implemented as follows

4.10-7 *Should the Regional Board request MSWD to perform additional work or implement other options, the following options shall be considered and implemented where applicable:*

Effluent Limit Feasibility Study

The first 6-months to 1-year of actual WVWRF effluent quality and groundwater monitoring well data after startup could be used to perform a cost-benefit analysis of effluent TDS/salt removal alternatives that may be appropriate in future. If it's deemed necessary depending on the results, complete an influent TDS study.

Influent TDS Study

A Influent TDS Study may be warranted to evaluate the proposed incremental increase in TDS/salt as water quality impact (WQI) above source water background levels and the impact that such discharge could have on the beneficial uses of the receiving aquifer: characterize influent TDS/salt and domestic/commercial sources within sewage collection system, alternatives for minimizing TDS/salt contribution from identified sources with costs comparison in dollars per ton to remove salt from influent (MSWD may need to work toward reducing combined the proposed WVWRF influent and effluent TDS/salt concentrations).

MSWD may also have to consider practicality of achieving a reduced incremental TDS increase, whether a 460 mg/L assimilative capacity measure for lower quality Mission Creek Subbasin is relevant to Garnet Hill Subbasin proposed for TDS at 500 mg/L, and if the increase is not practicable, MSWD would have to show 1) impacts of proposed TDS/salt input each year in terms of tons per year and concentration; 2) cost per ton of TDS/salt removed for each alternative; 3) capability of minimizing TDS/salt discharges; 4) proposed values for the practical incremental increase; and, 5) justification for the proposed practical incremental increased values.

Prohibition of Well Installations

An interim local (city/county/district) regulation/ordinance could be set forth to prevent the installation of additional wells in a specified area of the Garnet Hills Subbasin Management Zone (MZ) as a form of administrative/governmental control. As a potable municipal supply would be alternately be available for relevant properties, an interim ordinance would serve as an assurance on providing for aquifer quality for the known

and anticipated beneficial groundwater uses during the time of Phase I WWRF discharges. A review and re-evaluation of the needs for continuing any such prohibition should be completed as the Phase II tertiary treatment discharges are planned.

Nitrogen Removal in Shallow Percolation Ponds

Rafts of floating plants may be placed and maintained in percolation ponds to help limit the amount of nitrogen available for infiltration. These rafts would contain heat/water-philic plants appropriate for the site conditions that would utilize nutrients in the effluent for growth.

- 4.10-8** *All water secondary effluent percolation operations shall be monitored, and if impacts that were not forecast to occur as a result of the WWRF operations (outlined in the Antidegradation Analysis and Groundwater Monitoring Report, Appendices 7a and 7b, Volume 2 of this DEIR) cause unexpected significant adverse impact on the groundwater aquifer, the WWRF operations shall be terminated or modified to eliminate the adverse impact.*

4.10.8 Cumulative Impacts

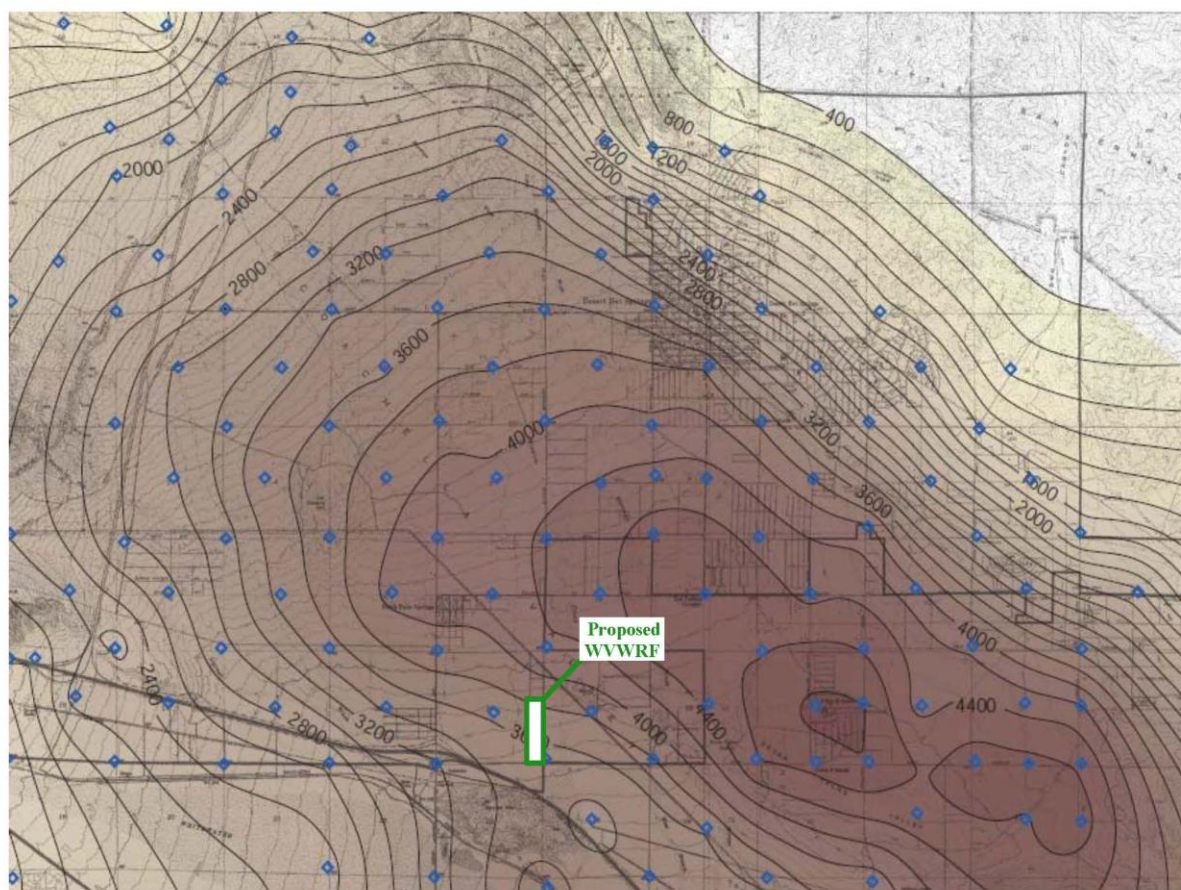
Based on the evaluation contained in this subchapter, implementation of the proposed project is not forecast to cause any cumulatively considerable adverse environmental impacts on hydrology and water quality resource issues with implementation of the required mitigation measures. The development of a new wastewater treatment plant, treating effluent to secondary treatment levels, as well as the development of the associated pipeline infrastructure is forecast to have potentially significant impacts to groundwater without mitigation. The installation of percolation ponds at the WWRF site is necessary for the WWRF to operate, but the impacts to the underlying groundwater table have been considered and analyzed throughout this subchapter. The only COC that may exceed the available assimilative capacity of the underlying groundwater table is TDS, the presence of which will be closely monitored and mitigated if required in the future. As stated above, during Phase 1 of the proposed WWWRP, it is anticipated that the WWRF will operate treating effluent to secondary treatment levels for 15 years at most; during Phase 2, MSWD intends to treat effluent at the WWRF to tertiary treatment levels to be generate recycled water, which would minimize the concentration of TDS that may enter the underlying groundwater table. Ultimately, because proposed project will be required to implement the above measures and comply with low impact development requirements of the Regional Board's MS4 permits, the implementation of the proposed components of the WWWRP are not forecast to substantially increase stormwater runoff within the project area or cause significant degradation of surface water quality. Based on the findings of the Antidegradation Analysis, it is anticipated that the proposed WWWRP activities would not cause a cumulatively considerable, or significant adverse impact to the groundwater resources of the Garnet Hill Subbasin or Mission Creek Subbasin, or other basins within the Coachella Valley Groundwater Basin if the proposed WWWRP is managed in accordance with the assumptions and mitigation measures outlined in this Subchapter of the DEIR.

4.10.9 Unavoidable Significant Adverse Impacts

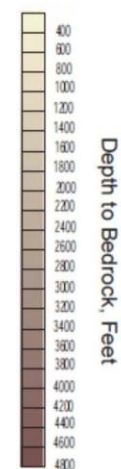
Implementation of the proposed WWWRP is not forecast to cause any direct or indirect significant adverse hydrology or water quality impacts with implementation of the required mitigation measures and the contingency measures, if required. The proposed project will result in unavoidable short-term changes in the hydrology and water quality of the Garnet Hill Subbasin MZ4, but the proposed phases of expansion of the WWRF—which will ultimately be necessary to support the growth of the surrounding community—and identified mitigation

measures will reduce these potential impacts to a less than significant level. Long-term (permanent) changes in storm flows at the proposed WWRF site will also be controlled to a less than significant level.

FIGURE 4.10-1
Depth to Crystalline Bedrock



Map Base: Individual Depth to Crystalline Bedrock (GSI Water, 2003)



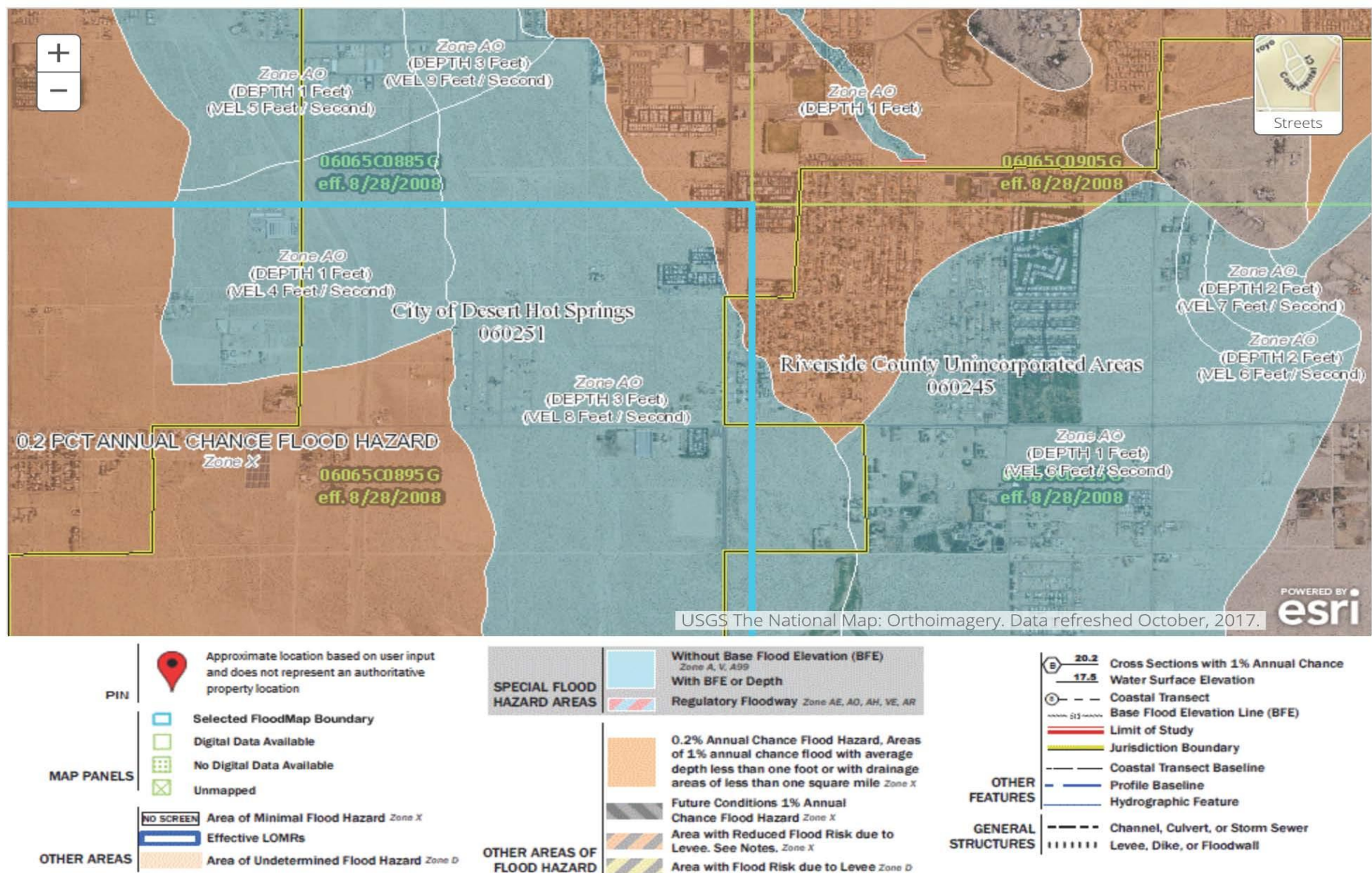
Scale: 1 Inch = Approximately 6,000-feet



Source: EnviroLogic Resources, Inc.

Tom Dodson & Associates
Environmental Consultants

FIGURE 4.10-2 Flood Hazards



**FIGURE 4.10-3
Flood Hazards**



4.11 LAND USE / PLANNING

4.11.1 Introduction

This Subchapter evaluates the environmental impacts to the issue areas of land use and planning resources from implementation of the proposed Project, the Mission Springs Water District (MSWD) West Valley Water Reclamation Program (WVWRP) Program Draft Environmental Impact Report (DEIR). This section describes the environmental setting for land use, as well as applicable regulatory framework, potential impacts associated with implementation of the proposed MSWD WVWRP, and mitigation measures to reduce those impacts to less than significant.

This document is a full-scope Program DEIR for the above-described project and all of the standard issues related to land use and planning resources identified in the Standard Environmental Checklist are analyzed in this DEIR. The issues pertaining to land use and planning will be discussed below as set in the following framework:

- Introduction
- Environmental Setting: Land Use and Planning
- Regulatory Framework
- Thresholds of Significance
- Potential Impacts
- Project-Specific Mitigation Measures
- Cumulative Impact
- Unavoidable Adverse Impacts

The City of Desert Hot Springs General Plan was used in the analyses presented in this Subchapter. No comments were received regarding this issue area from the public at the public scoping meeting or in response to the Notice of Preparation.

4.11.2 Environmental Setting

According to the City of Desert Hot Springs General Plan, *“The City of Desert Hot Springs comprises an established residential community with important vacation resorts centered on the City’s unique hot water mineral springs resource. The City also provides community-scale commercial and business centers serving the City and surrounding communities. Located in the northwest portion of the Coachella Valley in Riverside County, the City is a transitional area between a more intense tourist commercial base to the south and southeast and the more rural and quasi-industrial windfarm development to the west.”*

Additionally, *“The City is situated on an upper valley plain and mountain foothills within the widening low desert Coachella Valley, which ranges from one to about ten miles wide. The San Bernardino and Little San Bernardino Mountains bound the City on the west and north, respectively. The extensive alluvial plains formed by drainage from these mountains form the elevated valley on which most of the City has developed. The adjoining mountains and the San Jacinto and Santa Rosa Mountains to the southwest and south, respectively, also provide dramatic and valuable viewsheds. Development over the past decades has been focused within the existing urban growth area and in the north-central portion of the City. Approval of new residential and resort development has been predominantly in the western portions of the City and at the eastern end of Pierson Boulevard.”*

The proposed WVWRF site is currently vacant, with the exception of the MSWD well that is located in the northeast corner of the project site that will remain in place at the WVWRF site. The proposed WVWRF site is designated for Light Industrial (LI) use by the City of Desert Hot Springs General Plan, while the proposed sewer pipeline alignment traverses through the following land uses that are part of the Desert Hot Springs I-10 Community Annexation Land Use: Light Industrial (LI), Rural Desert (RD), Commercial Retail (CR), Open Space-Water (OS-W), Rural Residential (RR), and Medium Density Residential (MDR). The GQPP Area M2 (to be served by the WVWRF) is not within the Desert Hot Springs I-10 Community Annexation Land Use, and is designated for Residential Low Density (R-L). Refer to Figure 4.11-1 for the Desert Hot Springs General Plan Land Use Map.

In March of 2009, the City of Desert Hot Springs adopted Municipal Code Chapter 159, Zoning Code for the City of Desert Hot Springs I-10 Community. Additionally, the I-10 Community Annexation was approved by the Riverside County Local Agency Formation Commission (LAFCO) in 2010. The City amended the Land Use Map along with the Official Zoning Map, which ultimately serves as a single land use map for both the Desert Hot Springs I-10 General Plan and the Zoning Ordinance. The City of Desert Hot Springs Land Use Designations and Zoning District Consistency are outlined in the following table that links land use and zoning.

**Table 4.11-1
GENERAL PLAN LAND USE DESIGNATIONS / ZONING DISTRICT CONSISTENCY**

| LAND USE DESIGNATION | ZONING DISTRICT |
|----------------------------------|---|
| RD – Rural Desert | R-E-10 – Residential Estate (10 ac. min.) |
| RR – Rural Residential | R-E – Residential Estate |
| MDR – Medium Density Residential | R-L – Residential Low |
| HDR – High Density Residential | R-H – Residential High |
| LI – Light Industrial | I-L – Industrial Light |
| OS-R – Open Space – Recreation | OS-PP – Open Space Public Parks |
| OS-W – Open Space – Water | OS-FW – Open Space Floodways |
| CR – Commercial Retail | C-G – General Commercial APNs: 655-170-001, 002, 003, 005, 008, 011, 012, 666-370-005, 006, & 023 |
| | C-C – Community Commercial APNs: 660-160-003, 010, 011, 012, 015, 021, 660-190-021, and a portion of 660-160-002, 005, 027 |

The LI designation is representative of a Riverside County designation that was adopted by the City as interim designations with City Equivalent Land Uses which is Light Industrial (I-L).

Light Industrial (LI) - The Light Industrial land use designation allows for a wide variety of industrial and related uses, including assembly and light manufacturing, repair and other service facilities, warehousing, distribution centers, and supporting retail uses. Building intensity ranges, currently adopted under this designation, are from 0.25 to 0.6 Floor Area Ratio (FAR). It should be noted that the FAR may be subject to change upon when the City's Draft General Plan is drafted and the corresponding zoning is changed.

Light Industrial (I-L) – This designation provides for business parks and the development of any and all industrial uses operating entirely in enclosed buildings, and those requiring limited and

screenable outdoor storage. Additional examples of land uses permitted within this designation include clean manufacturing operations, energy generation, warehousing and distribution facilities, mini-warehouse storage, and a variety of light manufacturing businesses. Siting Industrial lands in close proximity to major regional highways is also desirable. Preferred development type includes master planned business and industrial parks with integrated access and internal circulation. Per Zoning Ordinance 553, marijuana cultivation facilities are also permitted in I-L district within the City, which includes the project site's designation through a required issuance of a conditional use permit and a regulatory permit.

4.11.3 Regulatory Framework

State

California Government Code Section

California Government Code Section 53091 specifies that water supply facilities such as those associated with the proposed project, are exempt from zoning restrictions. Specifically, Section 53091 states (State of California Legislative Council, 2003):

(d) Building ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency.

(e) Zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water.

Regional

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the federally mandated Metropolitan Planning Organization representing six counties: Los Angeles, Imperial, Orange, Riverside, San Bernardino, and Ventura. The SCAG Regional Comprehensive Plan addresses important regional issues such as housing, traffic/transportation, water, and air quality and serves as an advisory planning document to support and encourage local agencies in their planning efforts.

Local

Desert Hot Springs General Plan

As stated above, the proposed project is a water reclamation program proposed by MSWF that would construct municipal wastewater collection and treatment systems that will facilitate the elimination of individual septic systems that overlie the Mission Creek and Desert Hot Springs aquifers. The following goals and policies related to land use compatibility within the Land Use Element of the City of Desert Hot Springs General Plan may be applicable to program activities taking place within the City.

General Land Use Goals, Policies, and Programs: Goal 1

A balanced mix of functionally integrated land uses meeting general social and economic needs of the community through simplified, compatible and consistent land use and zoning designations.

General Land Use Goals, Policies, and Programs: Land Use and Planning Policy 1

The City shall establish and maintain a master land use map designating the appropriate land uses which implement the goals and policies of the Land Use Element and other elements of the General Plan.

Industrial Goals, Policies and Programs: Goal

Lands that provide for the development of non-polluting, energy-related and other clean industrial development that broadens the economic and employment base of the City, and assures compatible integration with other, non-industrial land uses.

Industrial Goals, Policies and Programs: Policy 2

Industrial lands shall be located in areas that maximize all available and planned infrastructures, including but not limited to water and sewer service, electric and natural gas service, and major transportation corridors, and should minimize the impact on public health and safety.

Industrial Goals, Policies and Programs: Policy 6

The City shall require adherence to applicable development standards and guidelines to assure aesthetically acceptable industrial developments for all new industrial sites.

Industrial Goals, Policies and Programs: Program 6 A

As an integral part of industrial park planning, the City shall require thoughtful site planning and extensive use of landscaping to enhance the appearance of industrial areas.

Industrial Goals, Policies and Programs: Program 6 B

The City shall review all industrial development proposals with a special regard for public health and safety issues to ensure that the type and intensity of the use is appropriate for the proposed location and compatible with surrounding land uses.

Public Facilities Goals, Policies and Programs: Goal

Public facilities which are located to efficiently serve the community and are compatible with surrounding land uses.

Public Facilities Goals, Policies and Programs: Policy 1

The City of Desert Hot Springs shall encourage the development of public facilities in a manner which assures adequate levels of service, while remaining compatible with existing and future land uses.

Water, Sewer and Utilities Goals, Policies and Programs: Goal 2

A citywide sewage collection and treatment system.

Water, Sewer and Utilities Goals, Policies and Programs: Policy 2

The City shall support the formation of neighborhood-wide Assessment Districts for the purpose of sewer installation

Water, Sewer and Utilities Goals, Policies and Programs: Program 2 A

The City shall cooperate with MSWD in their efforts to establish and prepare the preliminary engineering estimates for assessment districts for sewer installation.

Water, Sewer and Utilities Goals, Policies and Programs: Program 5 B

The City shall assist the MSWD in the development of a financial assistance program for sewer installation in existing neighborhoods.

4.11.4 Thresholds of Significance

The criteria used to determine the significance of impacts related to Land Use and Planning are based on Appendix G of the CEQA Guidelines. The proposed program would result in a significant impact to Land Use and Planning if it would:

1. Physically divide an established community;
2. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or
3. Conflict with any applicable habitat conservation plan or natural community conservation plan.

In the Standard Environmental Checklist Form provided in Appendix G of the State CEQA Guidelines there is one additional criterion required for evaluation. It reads: *Conflict with any applicable habitat conservation plan or natural community conservation plan?* The project site is located within the Coachella Valley County Multiple Species Habitat Conservation Plan (CVMSHCP) planning area. The project's consistency with the CVMSHCP is described in detail in the Biology Subchapter (4.5). Based on the detailed information in this section of the DEIR, the proposed Project was concluded to have no conflicts or inconsistency (waiting on the bio report) with the CVMSHCP. Please refer to Subchapter 4.5 of this document for detailed information. This issue will not be given further consideration in the Land Use and Planning Subchapter of the DEIR.

This document is a full-scope Program DEIR for the above-described project and all of the standard issues related to land use and planning resources as identified above are analyzed in Section 4.11.5 of this DEIR.

4.11.5 Potential Impacts

1. Would the Project Physically Divide an Established Community?

The proposed WVWRP does not include any action that would physically divide an established community. Typically, the types of projects that would physically divide an established community would be project such as highway construction, railroad tracks, or projects that would constrict or permanently remove access within an existing community that would impact mobility within a community or between a community and another area.

The WVWRF is located within a site that currently contains a well and is otherwise vacant. Site access is provided along Little Morongo Road and 20th Avenue. No development is located in the vicinity of the proposed WVWRF site, and the proposed location for the wastewater treatment plant is ideal for a number of reasons: no residential uses are located within 1,000 feet of the project site; and the site is located at one of the lowest elevation points within MSWD's service area, which will allow for much of the sewage to be transported to the WVWRF site by gravity, with some, if minimal, required use of lift stations to deliver sewage to the new

WVWRF site. In conclusion, development of the WVWRF at this site would not impact mobility in the immediate project area because very little development exists in the immediate project vicinity and no onsite development exists within the WVWRF site that would be impacted as a result of WVWRF construction or operation.

The proposed project involves temporary construction of pipeline within existing roadways and thoroughways. The project footprint has no General Plan Land Use Designation because pipelines and the roadways in which the new and replacement pipeline will be installed are considered essential infrastructure. Once in operation the pipeline installation portion of the WVWRP will not encroach on developed land surrounding the project footprint as the new sewer pipelines will be located underground within existing road rights-of-way and within existing thoroughways. As stated in the Project Description, the proposed WVWRP is considered a benefit to MSWD's service area because it would protect and preserve the quality of area groundwater through allowing individuals within GQPP Area M2 who currently utilize a septic system to use the proposed wastewater collection and treatment system, and hire a contractor to dig up the lids to the septic tank and pump out and decommission the tank. The WVWRP would facilitate the removal of individual septic systems by creating new sewer pipeline connections that would connect to MSWD's wastewater treatment collection system, for eventual treatment at the proposed WVWRF. Once the pipeline alignment is constructed, the roadways and thoroughways within which the pipeline will be installed will continue to function as they do at present. Therefore, neither the development of the WVWRF nor the development of the sewer pipeline alignment as part of the WVWRP project would result in physically dividing an established community.

In conclusion, there are no features of the WVWRP that would create a barrier or physically divide an established community. The linear features of the proposed program include pipelines that would be located below ground, which, once constructed, would have no potential to impact any above ground features within the project area. Therefore, impacts under this issue are considered less than significant.

2. Would the Project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed WVWRP would have a less than significant potential to conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project. The proposed project consists of the development of a wastewater treatment plant and associated transmission pipelines that would connect residents of Desert Hot Springs that currently use septic tanks to manage individual wastewater generation to MSWD's service area. The WVWRP would expand MSWD's service area, which would be beneficial to the surrounding community because the program would improve groundwater quality by facilitating the removal individual septic systems and treating wastewater for constituents of concern. The development of the proposed WVWRP would fall under California Government Code Section 53091, which specifies that water and wastewater supply facilities—such as those associated with the proposed project—are exempt from zoning restrictions. Specifically, Section 53091 states (State of California Legislative Council, 2003):

(d) Building ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency.

(e) Zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water.

Therefore, the development of the proposed WWRF at the proposed project site would be land use independent, and as such the City of Desert Hot Springs “building ordinances” and “zoning ordinances” do not apply to the location or construction of the overall program proposed as the WWRP. Therefore, the development of the WWRF at the proposed project site—which is designated for Light Industrial use by the City’s General Plan and by the City’s Zoning Ordinance—would not be subject to a conditional use permit or general plan amendment.

Additionally, pipelines and modifications to ancillary facilities—such as the proposed connection to the Dos Palmas Lift Station—would be installed primarily within or adjacent to public rights-of-way and thoroughways and would not conflict with land use designations or be incompatible with neighboring land uses. Furthermore, once constructed the proposed sewer pipelines would not pose long-term incompatibility with land uses due to their location below ground.

The City of Desert Hot Springs General Plan: Water, Sewer and Utilities Goals, Policies and Programs indicates that the City has set a long-term goal to seek to develop a citywide sewage collection and treatment system, and it has also set a Goal to implement Programs that would facilitate collaboration between the City and MSWD to develop plans that would assist with sewer installation and facilitate removal of individual septic systems within the City. Therefore, implementation of the proposed WWRP would have a less than significant potential to conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.

4.11.6 Avoidance, Minimization and Mitigation Measures

The proposed Project is consistent with applicable land use and planning documents. As stated above, development of the WWRP would fall under California Government Code Section 53091, and therefore the development of the WWRF at the proposed project site would be land use independent. No significant adverse impacts related to land use and planning resources and issues have been identified and no mitigation measures are required.

4.11.7 Cumulative Impacts

Development of the proposed Project will result in substantial change of the land use on the mostly vacant WWRF site and within the overall WWRP footprint, but the changes are consistent with the California Government Code, Section 53091. Furthermore, by providing greater access to MSWD’s services, including the collection and treatment of sewage, the proposed project would aid the City by contributing to the General Plan Goal to develop a citywide sewage treatment and collection system. Because the potential land use impacts associated with the implementation of the WWRP would be less than significant, the project’s contribution to cumulative land use impacts would be less than cumulatively considerable and thus a less than significant cumulative land use impact would occur.

4.11.8 Unavoidable Significant Adverse Impacts

The proposed Project is consistent with the current the California Government Code, Section 53091; and would not conflict with the policies within the City of Desert Hot Springs General Plan. Based on the data and analysis presented in this subchapter, implementation of the proposed Project is not forecast to cause unavoidable significant adverse land use and planning impacts.



Desert Hot Springs

FIGURE 4.11-1

General Plan Update

DESERT HOT SPRINGS GENERAL PLAN Land Use Designations

Legend

- City Boundaries
- - - Sphere of Influence
- - - DHS I-10 Community Annexation

DHS I-10 Community Annexation Land Use

- RD - Rural Desert
- RR - Rural Residential
- MDR - Medium Density Residential
- HDR - High Density Residential
- CR - Commercial Retail
- LI - Light Industrial
- OS-R - Open Space-Recreation
- OS-W - Open Space-Water

Existing General Plan Land Use Designations

Residential

- R-E Residential Estates
- R-E/SP
- R-E-2.5
- R-E-5
- R-E-10
- R-L Residential Low Density (0-5 du/ac)
- R-L/SP
- R-M Residential Medium Density (0-8 du/ac)
- R-M/SP
- R-MH Residential Mobile Home (0-10 du/ac)
- R-MH/SP
- R-H Residential High Density (0-14 du/ac)
- R-H/SP
- R/VS-L Residential Visitor Serving (Low Density)
- R/VS-M Residential Visitor Serving (Medium Density)
- V-S-M
- R/VS-H Residential Visitor Serving (High Density)

Commercial

- C-N Neighborhood Commercial
- C-C Community Commercial
- C-C/SP
- C-G General Commerical
- C-G/SP
- V-S Visitor Serving
- V-S-V Visitor Serving Village
- V-S-C Visitor Serving Commercial

Industrial

- I-L Light Industrial
- I-M Medium Industrial
- I-E Industrial Energy-Related

Public

- P Public Uses
- P/F (Fire Station)
- P/PO (Post Office)
- P/S (School)
- P/U (Utility)

Open Space

- OS/MR Mountain Reserve
- OS/PP Parks Open Space
- OS/PV Private Open Space
- OS/FW Floodways

DISCLAIMER:
This map is a public resource of general information. The feature data provided on this map represents the most accurate zoning and parcel information available at the most recent date of revision. In the event of a conflict between information on this map and adopted City Resolutions or Ordinances, the City's Resolutions or Ordinances shall govern.

1" = 2,250'-0"



4.12 MINERAL RESOURCES

4.12.1 Introduction

This Subchapter evaluates the environmental impacts to the issue of mineral resources from implementation of the proposed Mission Springs Water District (MSWD) West Valley Water Reclamation Program (WVWRP). Historically there has been no development of any mineral resources within the West Valley Water Reclamation Facility (WVWRF) site, and the remainder of the proposed project consists of the installation of sewer pipeline and associated sewer pipeline connections, which will occur within existing roadways and throughways within the City of Desert Hot Springs. As part of this Program Draft Environmental Impact Report (DEIR), this document provides an evaluation of the mineral resource potential of the project site.

The City of Desert Hot Springs General Plan EIR identifies the following issues, as outlined in Appendix G of the CEQA Guidelines, to define when a project would normally have a significant effect on the environment if the project would:

1. 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.
2. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

The issues pertaining to mineral resources will be discussed below as set in the following framework:

- Introduction
- Environmental Setting: Mineral Resources
- Thresholds of Significance
- Potential Impacts
- Project-Specific Mitigation Measures
- Cumulative Impact
- Unavoidable Adverse Impacts

The following analysis is based on the City of Desert Hot Springs General Plan and General Plan EIR, as well as a careful field review of the program footprint and surrounding property. No comments were received regarding Mineral Resources in response to the Notice of Preparation or at the Scoping Meeting.

4.12.2 Environmental Setting

The proposed Project is located in the City of Desert Hot Springs in Riverside County, California. According to the City of Desert Hot Springs General Plan, there are relatively few mineral resources within the City, as the majority of the City area is made up of alluvial fans, containing mostly sand and gravel. The sand and gravel deposits within the City and surrounding area do represent an important economic resource, used for road base and similar applications. Other mineral deposits occurring in the region include copper, limestone, specialty sands, and tungsten. These deposits are limited to rocky outcroppings occurring in the Little San Bernardino Mountains and have not been exploited.

The City of Desert Hot Springs General Plan offers the following Open Space and Conservation Goals, Policies and Programs regarding preservation of Mineral Resources:

Open Space and Conservation Goals, Policies and Programs: Goal 2

Preservation of the City 's desert atmosphere, including maintenance of natural and scenic resources.

Open Space and Conservation Goals, Policies and Programs: Policy 7

The City shall adopt a comprehensive grading ordinance that will protect and conserve open space and natural resources to the greatest extent practical (also see Geotechnical Element).

Open Space and Conservation Goals, Policies and Programs: Program 7 A

The City shall develop and adopt a comprehensive grading ordinance that protects hillsides and other open space and natural resource conservation areas sensitive in terms of topography and visibility, wildlife resources, water or mineral resources and air quality.

Based on the available data, and given that the project is not located near the Little San Bernardino Mountains, the project footprint and project area do not support any mineral resource values and the current land use designation at the WVWRF site, Light Industrial, would not support any mineral extraction activities.

4.12.3 Thresholds of Significance

The City of Desert Hot Springs adheres to Appendix G of the CEQA Guidelines, which states that a project would normally have a significant effect on the environment if the project would:

- 1) 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.
- 2) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

The questions posed in the DEIR are included for each topical section to guide the impact analysis and the above significance criteria represent a summary of the thresholds appropriate to evaluate mineral resource values that may be impacted by the proposed Project.

4.12.4 Potential Impacts

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?

The proposed WVWRP would construct municipal wastewater collection and treatment systems that will facilitate the elimination of individual septic systems that overlie the Mission Creek and Desert Hot Springs aquifers. The development of the WVWRF would be located within a mostly vacant site containing an existing MSWD well, while the installation of sewer pipeline alignments will occur within existing roadways and throughways. Based on a review of available data and a field review of the project footprint and surrounding area, there are no known mineral resource values in the general project area. The project footprint is not identified as an area where there are any known mineral resource values. Thus, the proposed Project has no potential to adversely impact any known mineral resources.

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The City of Desert Hot Springs General Plan does not specify the WVWRF site, the pipeline footprint or surrounding area as a locally-important mineral resource recovery site. In fact, as stated above, the General Plan states the following on Page IV-46:

“Mineral deposits occurring in the region include copper, limestone, specialty sands, and tungsten. These deposits are limited to rocky outcroppings occurring in the Little San Bernardino Mountains and have not been exploited.”

Therefore, the implementation of the proposed WVWRF has no potential to create significant inconsistency with the City of Desert Hot Springs General Plan and the proposed Project will not result in the loss of a locally-important mineral resource recovery site. No adverse impact to this environmental issue or any actual mineral resource values will result from project implementation.

4.12.5 Avoidance, Minimization and Mitigation Measures

The proposed Project has no potential to impact any mineral resource values. Therefore, no mitigation is required to address mineral resource issues.

4.12.6 Cumulative Impact

The project site and surrounding area do not contain any existing mineral development nor any identified potential for mineral resource development. Implementation of the proposed WVWRF will not cause any adverse impacts to mineral resource or values. As a result, the proposed Project has no potential to contribute to any cumulative loss of mineral resources or values. The project will have no cumulative adverse impact to mineral resources.

4.12.7 Unavoidable Significant Adverse Impacts

The project footprint and surrounding area do not contain any existing mineral development nor any identified potential for mineral resource development. Based on these data, the proposed WVWRF has no potential to cause any unavoidable adverse impact to mineral resources or values in the City of Desert Hot Springs.

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4.13 NOISE

4.13.1 Introduction

This Subchapter evaluates the environmental impacts to the existing noise environment from implementation of the proposed Project, the Mission Springs Water District (MSWD) West Valley Water Reclamation Program (WVWRP). The potential noise exposure of the proposed Project is also evaluated. The proposed West Valley Water Reclamation Facility (WVWRF) is located within the City of Desert Hot Springs, as is the majority of the conveyance pipeline that will be installed as part of the WVWRP enabling MSWD to expand its current sewer service area and deliver sewage to the new WVWRF. However, a portion of the conveyance pipeline will be installed within the County of Riverside.

In support of the proposed MSWD WVWRP Program Draft Environmental Impact Report (DEIR), an Acoustical Impact Analysis (AIA) has been prepared. The report addresses both construction and operational noise that would occur as a result of implementation of the various components of the WVWRP. The *Acoustical Impact Analysis, MS-257 Mission Springs Water District Project, Desert Hot Springs and Riverside County, California* was prepared by Giroux & Associates on December 14, 2018. The AIA is provided as Appendix 8, Volume 2 to this DEIR.

MSWD proposes to implement the WVWRP, which includes constructing municipal wastewater collection and treatment systems, which will facilitate the elimination of individual septic systems that overlie the Mission Creek and Desert Hot Springs aquifers. Please refer to Appendix 1, Volume 2 of this DEIR for a copy of the plans that make up the WVWRP, which includes the Preliminary Design Report for the WVWRF, the Comprehensive Wastewater Facilities Strategic Plan for MSWD, and the West Valley Sewer Conveyance System Technical Memorandum. Additionally, a detailed description of the construction and operational activities associated with implementation of the WVWRP is included in the Project Description, Chapter 3 of this DEIR.

This document is a full-scope DEIR for the above-described project and all of the standard issues related to land use and planning resources identified in Appendix G of the State CEQA Guidelines. The issues pertaining to noise will be discussed below as set forth in the following framework:

- Introduction
- Noise Characteristics
- Project Noise Impacts
- Environmental Consequences
- Mitigation Measures
- Cumulative Impacts
- Unavoidable Significant Adverse Impacts

No comments specific to this topic were received in response to the Notice of Preparation. No comments were received at the scoping meeting held for the proposed Project.

Other documents referenced in the preparation of this chapter include:

- City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000

4.13.2 Noise Characteristics

4.13.2.1 Noise Descriptors

For the purposes of this evaluation, noise is defined as unwanted sound. Typically sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Sound is technically described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, special frequency-dependent rating scales have been devised to relate noise to human sensitivity. The A-weighted decibel scale dB performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. A-weighted decibels are written as "dBA" or "dB(A)".

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquake intensity. In general, a 1-dB change in the sound pressure levels of a given sound is detectable only under laboratory conditions. A 3-dB change in sound pressure level is considered a "just detectable" difference in most ambient situations. A 5-dB change is readily noticeable and a 10-dB change is considered a doubling (or halving) of the subjective loudness. It should be noted that, generally speaking, a 3-dB increase or decrease in the average traffic noise level is realized by a doubling or halving of the traffic volume.

In terms of human response to noise, a sound 10 dB higher than another is judged to be twice as loud; 20 dB higher, four times as loud; and so forth. Everyday sounds normally range from 30 dB (very quiet) to 100 dB (very loud.)

4.13.2.2 Noise Scales

There are two general methods used to measure sound over a period of time, all of which are based on averages, rather than instantaneous, noise levels: the Community Noise Equivalent Level (CNEL), and the equivalent energy level (L_{eq}):

CNEL: The predominant community noise rating scale used in California for land use compatibility assessment is the Community Noise Equivalent Level (CNEL). The CNEL reading represents the average of 24-hourly readings of equivalent levels, known as L_{eqs} , based on an A-weighted decibel with upward adjustments added to account for increased noise sensitivity in the evening and night periods. These adjustments are +5 dB in the evening (7:00 p.m. to 10:00 p.m.), and +10 dB for the night (10:00 p.m. to 7:00 a.m.). CNEL may be indicated by "dB CNEL" or just "CNEL."

L_{eq} : The L_{eq} is the sound level containing the same steady-state total energy over a given sample time period as a continuously varying ambient level. The L_{eq} can be thought of as the steady (average) sound level which, in a stated period of time, would contain the same acoustic energy as the time-varying sound level during the same period. L_{eq} is typically computed over 1, 8, and 24-hour sample periods.

Because this project is within the City of Desert Hot Springs as well as Riverside County, noise ordinances for both municipalities are provided.

4.13.2.3 Sensitive Receptors

Sensitive noise receptors are generally considered to be residences, schools, health care facilities, hotels/motels, churches, libraries, or passive parks. Residential uses are particularly sensitive to nocturnal (night-time) noise intrusion that might be associated with construction, operations/occupancy, or vehicle traffic. Schools similarly could be affected by daytime noise sources.

4.13.2.4 Noise Standards

The federal government, the State of California, county governments, and many municipalities have established standards and ordinances to limit intrusive and physically and/or psychologically damaging noise levels. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains fairly constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

State Noise Regulations

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared according to guidelines adopted by the Governor's Office of Planning and Research. The purpose of the Noise Element is to "limit the exposure of the community to excessive noise levels." In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

The California Noise Insulation Standards found in the California Code of Regulations, Title 24, set requirements for new construction that may be exposed to relatively high levels of transportation-related noise in order to control interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies (refer to the AIA in Appendix 8, Volume 2, Technical Appendices) must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL according to State recommended noise standards.

Riverside County Noise Regulations and Standards

The Riverside County noise standards applicable for a water reclamation project are found in the General Plan Noise Element in Table N-2 and are shown in Table 2 of this report. These noise standards must be met at the nearest sensitive receptors in the vicinity of any stationary or operational source of noise originating from the project. The policy applies to any on-site activities such as mechanical equipment. The policy allows maximum property line noise level of 65 dBA L_{eq} from 7 a.m. to 10 p.m. and 45 dBA L_{eq} from 10 p.m. to 7 a.m. for 10-minute periods at any sensitive receiver.

Table 4.13-1
STATIONARY SOURCE LAND USE EXTERIOR NOISE STANDARDS
RIVERSIDE COUNTY

| Stationary Source Land Use Exterior Noise Standards | |
|---|-----------------------------------|
| 7 a.m. – 10 p.m. | 65 dB L _{eq} (10 minute) |
| 10 p.m. – 7 a.m. | 45 dB L _{eq} (10 minute) |

Source: Noise Element Table N-2

Construction activity noise is restricted by ordinance to occur during hours of lesser sensitivity. In addition, grading permits require use of properly operating mufflers on all combustion equipment. Materials stockpiling and equipment and vehicle staging areas are also encouraged to be placed as far away from existing homes as is reasonably feasible.

Ordinance 457.90, Section 1G of the Riverside County Building and Safety Department, states the following:

- Whenever a construction site is within one-quarter (1/4) mile of an occupied residence(s), no construction activities shall be undertaken between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September and between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May.

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 thru Saturday. During daylight savings time the permissible hours are 6 am to 6 pm. Construction is not permitted on Sundays.

General Plan Policies

The following are applicable policies from the City of Desert Hot Springs General Plan related to Noise:

Noise Element Goals, Policies, and Programs: Goal 1

A noise environment providing peace and quiet that complements and is consistent with the City's spa resort and residential character and the various mix of land uses comprising the community.

Noise Element Goals, Policies, and Programs: Policy 1

The potential of land use patterns, associated traffic and its distribution, and individual development shall be assessed for their potential to generate adverse and incompatible noise impacts, and significant impacts identified shall be appropriately mitigated.

Noise Element Goals, Policies, and Programs: Policy 2

Protect noise sensitive land uses, including residences, resorts and community open space, schools, libraries, churches, hospitals and convalescent homes from high noise levels from both existing and future noise sources.

Noise Element Goals, Policies, and Programs: Program 2 B

On a project-specific basis, require the installation of sound walls, earthen berms, wall and window noise insulation and other mitigation measures in areas exceeding the City's noise limit standards.

Noise Element Goals, Policies, and Programs: Policy 4

Land uses that are compatible with higher noise levels shall be located adjacent to the City's major arterial roads and highways, Interstate-10 corridor, or designated industrial lands in order to maximize noise related land use compatibility.

4.13.2.5 Vibration

Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure borne noise. 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, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency. Vibration is often described in units of peak particle velocity (PPV) or acceleration (inches per second), and discussed in decibel (VdB) units in order to compress the range of numbers required to describe vibration. Vibration impacts 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. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Refer to Table 4.13-2 for a summary of typical human response to vibration and typical vibration impacts on structures.

Vibration Standards

The United States Department of Transportation Federal Transit Administration (FTA) provides guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines allow 80 VdB for residential uses and buildings where people normally sleep. Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration 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. Occasionally large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity. Typical vibration levels attributable to construction equipment are provided in Table 4.13-3. The threshold at which there may be a risk of architectural

damage to normal houses with plastered walls and ceilings is 0.20 PPV in/second. Therefore, vibrations levels in excess of 0.2 inches per second (in/sec) PPV would be considered a significant impact. Alternatively, the FTA guidelines of 80 VdB for sensitive land uses provide the basis for determining the relative significance of potential Project related vibration impacts.

**Table 4.13-2
TYPICAL HUMAN REACTION AND EFFECT ON BUILDINGS DUE TO GROUNDBORNE VIBRATION¹**

| Vibration Level Peak Particle Velocity (PPV) | Human Reaction | Effect of Buildings |
|---|--|--|
| 0.006 - 0.019 in/sec | Threshold of perception, possibility of intrusion | Vibration unlikely to cause damage of any type |
| 0.08 in/sec | Vibrations readily perceptible | Recommended upper level of vibration of which ruins and ancient monuments should be subjected |
| 0.10 in/sec | Level at which continuous vibration begins to annoy people | Virtually no risk of "architectural" (i.e., not structural) damage to normal buildings |
| 0.20 in/sec | Vibrations annoying to people in buildings | Threshold at which there is a risk to "architectural" damage to normal dwelling - houses with plastered walls and ceilings |
| 0.4 - 0.6 in/sec | Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges | Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage |

¹Source: California Department of Transportation, 2002

**Table 4.13-3
VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT¹**

| Equipment | Peak Particle Velocity (inches/second) at 25 feet | Approximate Vibration Level LV (dVB) at 25 feet |
|--------------------------------|--|--|
| Pile driver (impact) | 1.518 (upper range) | 112 |
| | 0.644 (typical) | 104 |
| Pile driver (sonic) | 0.734 upper range | 105 |
| | 0.170 typical | 93 |
| Clam shovel drop (slurry wall) | 0.202 | 94 |
| Hydromill | 0.008 in soil | 66 |
| Slurry wall | 0.017 in rock | 75 |
| Vibratory Roller | 0.21 | 94 |
| Hoe Ram | 0.089 | 87 |
| Larger bulldozer | 0.089 | 87 |
| Caisson drill | 0.089 | 87 |
| Loaded trucks | 0.076 | 86 |
| Jackhammer | 0.035 | 79 |
| Small bulldozer | 0.003 | 58 |

¹Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006

4.13.3 Project Noise Impacts

4.13.3.1 Thresholds of Significance

According to the current CEQA Appendix G guidelines, noise impacts are considered potentially significant if they cause:

1. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Noise levels exceeding the City of Desert Hot Springs or Riverside County Noise Standards would be considered significant.
2. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
3. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport—expose people residing or working in the Project area to excessive noise levels?
6. For a project within the vicinity of a private airstrip—expose people residing or working in the Project area to excessive noise levels?

The noise impact assessment evaluates short-term (temporary) impacts associated with project construction as well as long-term (permanent) impacts resulting from project operation. For construction noise, the potential for impacts is assessed by considering several factors, including the proximity of construction-related noise sources to sensitive receptors, typical noise levels associated with construction equipment (including construction-related vehicles), the potential for construction noise levels to interfere with adjacent residential activities, the duration that sensitive receptors would be affected, and whether proposed activities would occur outside the construction time limits specified in the Riverside County and City of Desert Hot Springs noise ordinances. For operational noise, the potential for impact resulting from the new plant or pipeline operational activities will be evaluated. Construction noise is typically governed by ordinance limits on allowable times of equipment operations.

For Desert Hot Springs Construction noise is exempt from noise standards as long as work is limited to the hours of 7 am to 5 pm Monday thru Saturday. During daylight savings time the permissible hours are 6 am to 6 pm. Construction is not permitting on Sundays.

For Riverside County, whenever a construction site is within one-quarter (1/4) mile of an occupied residence(s), no construction activities shall be undertaken between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September and between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May.

However, it may be that even if allowable hours of construction are limited to hours of lesser noise sensitivity, a noise nuisance may nevertheless be created by virtue of the type of noise, heightened sensitivity or other site-specific features of the environmental setting. Ordinance compliance alone is therefore not a sufficient basis to guarantee a less-than-significant noise impact. Neither the County or City Code establish numeric maximum for acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what constitutes a *substantial temporary or periodic noise increase*, as required by CEQA.

To evaluate whether the project will generate potentially significant construction noise levels at off-site sensitive receiver locations, a construction-related noise level threshold is adopted from the *Criteria for Recommended Standard: Occupational Noise Exposure* prepared by the National Institute for Occupational Safety and Health (NIOSH). A division of the U.S. Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The construction related noise level threshold starts at 85 dBA for more than eight hours per day, and for every 3 dBA increase, the exposure time is cut in half. This results in noise thresholds of 88 dBA for more than four hours per day, 92 dBA for more than one hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. Since this construction-related noise level threshold represents the energy average of the noise source over a given time, they are expressed as L_{eq} noise levels. Therefore, the noise level threshold of 85 dBA L_{eq} over a period of eight hours, or 88 dBA for four hours, or 92 dBA for one hour or more is used to evaluate the potential project-related construction noise level impacts at nearby sensitive receivers.

4.13.3.2 Sensitive Receptors in the Vicinity of the WVWRP Footprint

The Area M2 mainline sewer will be installed near the roadway centerline. The sewer laterals going to each property on both sides of the street will be installed generally perpendicular off the mainline up to the property line (or where the public right-of-way stops). In Area M2, the closest residences will have an approximate 40-foot separation distance.

The treatment plant is in a remote location and has a 1.8-mile separation distance to the closest sensitive use.

4.13.4 Environmental Consequences

The proposed Project would generate noise during construction and operation. Project-related pavement cutting, excavation, and repaving activities could result in vibration that could disturb nearby residents and/or cause cosmetic damage to existing adjacent buildings or structures. Operation of the pipeline facilities would not result in significant long-term noise impacts, since these facilities would be located below ground surface. Additionally, the distance and associated noise attenuation from the WVWRF and the closest residences ensure associated operational noise will not be noticeable.

4.13.4.1 Construction Activity Noise Impacts

This section addresses the following questions included in the CEQA Appendix G guidelines:

- 1. Would the Project result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**
- 4. Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above noise levels existing without the proposed Project?**

Construction noise levels would vary at any given receptor depending on the construction phase, equipment type, duration of use, distance between the noise source and receptor, and the presence or absence of barriers between the noise source and receptor. For this analysis, construction noise levels were estimated for proposed daytime construction. Construction noise is unavoidable though noise would be temporary and limited to the duration of the construction in any one location.

Table 4.13-4 identifies the highest (L_{max}) noise levels associated with each type of equipment identified for use, then adjusts this noise level for distance to the closest sensitive receptors and the extent of equipment usage (usage factor), which is represented as an hourly average L_{eq} . Quantitatively, the primary noise prediction equation is expressed as follows for the hourly average noise level (L_{eq}) at distance D between the source and receiver (dBA):

$$L_{eq} = L_{max} @ 50' - 20 \log (D/50') + 10 \log (U.F\%/100) - I.L.(bar)$$

Where:

$L_{max} @ 50'$ is the published reference noise level at 50 feet

U.F.% is the usage factor for full power operation per hour

I.L.(bar) is the insertion loss for intervening barriers

For the proposed project, heavy equipment will likely be used for the WWRWF construction. The collection pipeline being installed within the narrow local roadways such as Area M-2 will use much smaller equipment. The modeled construction equipment fleet is shown in Table 4.13-4.

**Table 4.13-4
MODELED CONSTRUCTION ACTIVITY EQUIPMENT FLEET**

WWRWF

| Phase Name and Duration | Equipment | Usage Factor | Reference Noise Level @ 50 feet (dBA) | Hourly Average Noise Level @ 50 feet (dBA) |
|-------------------------|----------------|--------------|---------------------------------------|--|
| Excavation and Grading | Excavator | 40% | 81 | 78 |
| | Dozer | 40% | 85 | 82 |
| | Grader | 40% | 85 | 81 |
| | Loader/Backhoe | 37% | 78 | 74 |
| Building and Equipping | Crane | 16% | 81 | 73 |
| | Loader/Backhoe | 37% | 78 | 74 |
| | Generator Set | 50% | 81 | 78 |
| | Welder | 46% | 74 | 71 |
| | Forklift | 20% | 75 | 69 |
| Finish and Clean | Paver | 42% | 77 | 74 |
| | Compactor | 20% | 80 | 72 |
| | Rollers | 38% | 80 | 73 |

PIPELINE INSTALLATION

| Phase Name and Duration | Equipment | Usage Factor | Reference Noise Level @ 50 feet (dBA) | Cumulative Noise Level @ 50 feet (dBA) |
|--------------------------------|----------------|--------------|---------------------------------------|--|
| Prep and Concrete Removal | Concrete Saw | 20% | 90 | 83 |
| | Loader/Backhoe | 37% | 78 | 74 |
| Trenching and Pipeline Install | Trencher | 50% | 82 | 79 |
| | Crane | 16% | 81 | 73 |
| | Forklift | 20% | 75 | 69 |
| | Trencher | 50% | 85 | 82 |
| | Loader/Backhoe | 37% | 78 | 74 |

| Phase Name and Duration | Equipment | Usage Factor | Reference Noise Level @ 50 feet (dBA) | Cumulative Noise Level @ 50 feet (dBA) |
|-------------------------|----------------|--------------|---------------------------------------|--|
| Backfill and Paving | Mixer | 40% | 80 | 76 |
| | Paver | 42% | 77 | 74 |
| | Roller | 38% | 80 | 73 |
| | Loader/Backhoe | 37% | 78 | 74 |
| | Compactor | 20% | 80 | 72 |

Point sources of noise emissions are attenuated by a factor of 6 dBA per doubling of distance through geometrical (spherical) spreading of sound waves. The closest receptor to the proposed WVWRF has more than a 1.8 mile separation distance. This would translate to -46 dBA of noise attenuation. As shown in Table 4.13-5, it is unlikely that construction equipment related to the treatment plant would be heard at the closest sensitive use.

The sewage pipeline will be installed near the center of the public roadway in Area M-2. As shown in Table 4.13-5, at the closest residential setback of 40 feet, noise levels along the various pipeline alignments are estimated to range between 71 and 85 dBA (Leq). The noisiest activities occur during pavement removal, which can include jackhammering and sawing. These maximal noise levels are limited to the time it takes to remove pavement adjacent to any residence which would be brief and would affect a given sensitive receptor for only a short period of time. While such noise levels will be noticeable at times, these exceedances would be sporadic (not continuous) in nature, limited in duration, and would occur only when equipment is typically operated in close proximity of a receptor. Because of the nature of a pipeline installation, construction noise near any single residence becomes quieter as installation progresses down the alignment. Additionally, activities are limited to daytime hours when most people are away.

**Table 4.13-5
CONSTRUCTION ACTIVITY NOISE – ADJUSTED FOR DISTANCE**

WVWRF

| Phase Name and Duration | Equipment | Noise at Nearest Home (dBA) |
|-------------------------|----------------|-----------------------------|
| Excavation and Grading | Excavator | 32 |
| | Dozer | 36 |
| | Grader | 35 |
| | Loader/Backhoe | 28 |
| Building and Equipping | Crane | 27 |
| | Loader/Backhoe | 28 |
| | Generator Set | 32 |
| | Welder | 25 |
| | Forklift | 23 |
| Finish and Clean | Paver | 28 |
| | Compactor | 26 |
| | Rollers | 27 |

Pipeline Installation Noise – Adjusted for Distance

| Phase Name and Duration | Equipment | Noise at Nearest Home (40 feet) (dBA) |
|--------------------------------|----------------|---------------------------------------|
| Prep and Concrete Removal | Concrete Saw | 85 |
| | Loader/Backhoe | 76 |
| Trenching and Pipeline Install | Trencher | 81 |
| | Crane | 73 |
| | Forklift | 71 |
| | Trencher | 81 |
| | Loader/Backhoe | 76 |
| Backfill and Paving | Mixer | 78 |
| | Paver | 76 |
| | Roller | 75 |
| | Loader/Backhoe | 76 |
| | Compactor | 74 |

Construction noise resulting from the WWRWF will be negligible at the closest sensitive use. The highest noise level of 36 dBA L_{eq} would be less than ambient noise. For the pipeline installation, the highest construction noise levels at the maximally impacted residential receiver location could approach 85 dBA L_{eq} during concrete sawing and removal. However, concrete sawing will last only a few minutes at the closest distance to any home and will lessen as the saw moves farther away. A noise level of 92 dBA is permitted for more one hour per day and will satisfy the NIOSH significance threshold during temporary construction activities. The noise impact due to unmitigated construction noise levels is, therefore, considered a less than significant impact at all nearby sensitive receiver locations.

For Desert Hot Springs construction noise is allowed only during the hours of 7 am to 5 pm Monday thru Saturday. During daylight savings time the permissible hours are 6 am to 6 pm. Construction is not permitting on Sundays.

For Riverside County, whenever a construction site is within one-quarter (1/4) mile of an occupied residence(s), no construction activities shall be undertaken between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September and between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May.

Construction is not permitted on any national holiday. These hours are included as conditions on any project construction permits and these limits will serve to minimize any adverse construction noise impact potential.

Conclusion

Short-term construction noise intrusion and vibration impacts will be limited by conditions on construction permits requiring compliance with the following hours:

- For Desert Hot Springs construction noise is allowed only during the hours of 7 am to 5 pm Monday thru Saturday. During daylight savings time the permissible hours are 6 am to 6 pm. Construction is not permitting on Sundays.
- For Riverside County, whenever a construction site is within one-quarter (1/4) mile of an occupied residence(s), no construction activities shall be undertaken between the hours

of 6:00 p.m. and 6:00 a.m. during the months of June through September and between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May.

In addition, the following standard construction practices are required:

- All construction equipment shall use properly operating mufflers.
- Stockpiling and staging activities must be located as far as practicable from dwellings.
- All mobile equipment shall have properly operating and maintained mufflers.

Noise from construction or operation of the WWRWF will be minimal due to the 1.8 mile distance separation to the closest residence. Noise levels will typically be lower than background ambient noise and will not be sleep-disturbing at the closest homes. The construction of the proposed WWRWF and conveyance pipeline alignment will comply with both County and City Code; therefore, with implementation of the above contingency mitigation measures to ensure that the project complies with City and County ordinances, impacts from noise generated by construction are considered less than significant.

4.13.4.2 Construction Activity Vibration Impacts

This section addresses the following questions included in the CEQA Appendix G guidelines:

1. **Would the Project result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**
2. **Would the Project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?**

Project-related pavement cutting, excavation, and repaving activities could result in vibration that could disturb nearby residents and/or cause cosmetic damage to existing adjacent buildings or structures.

Groundborne vibration occurs when heavy equipment travels over unpaved surfaces or when it is engaged in soil movement. The effects of groundborne vibration include discernable movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. Vibration related problems generally occur due to resonances in the structural components of a building because structures amplify groundborne vibration. Within the “soft” sedimentary surfaces of much of Southern California, ground vibration is quickly damped out. Groundborne vibration is almost never annoying to people who are outdoors (FTA 2006).

Groundborne vibrations from construction activities rarely reach levels that can damage structures. Because vibration is typically not an issue, very few jurisdictions have adopted vibration significance thresholds. Vibration thresholds have been adopted for major public works construction projects, but these relate mostly to structural protection (cracking foundations or stucco) rather than to human annoyance.

The vibration descriptor commonly used to determine structural damage is the peak particle velocity (ppv) which is defined as the maximum instantaneous positive or negative peak of the vibration signal, usually measured in in/sec. The range of such vibration is as follows in Table 4.13-6:

**Table 4.13-6
HUMAN RESPONSE TO TRANSIENT VIBRATION**

| Average Human Response | PPV (in/sec) |
|------------------------|--------------|
| Severe | 2.000 |
| Strongly perceptible | 0.900 |
| Distinctly perceptible | 0.240 |
| Barely perceptible | 0.035 |

Source: Caltrans Transportation and Construction Vibration Guidance Manual, 2013.

Over the years, numerous vibration criteria and standards have been suggested by researchers, organizations, and governmental agencies. There are no Caltrans or Federal Highway Administration standards for vibration.

According to Caltrans, the threshold for structural vibration damage for modern structures is 0.5 in/sec for intermittent sources, which include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. The American Association of State Highway and Transportation Officials (AASHTO) (1990) identifies maximum vibration levels for preventing damage to structures from intermittent construction or maintenance activities for residential buildings in good repair with gypsum board walls to be 0.4–0.5 in/sec. The damage threshold criterion of 0.2 in/sec is appropriate for fragile buildings. For the purpose of this analysis because adjacent residences can be older, the 0.2 in/sec damage threshold for older fragile/historic buildings is used as the evaluation criteria. Below this level there is virtually no risk of building damage. Table 4.13-7 shows the predicted vibration levels generated by construction equipment.

**Table 4.13-7
ESTIMATED VIBRATION LEVELS DURING PROJECT CONSTRUCTION**

| Equipment | PPV at 25 ft (in/sec) | PPV at 50 ft (in/sec) | PPV at 75 ft (in/sec) | PPV at 100 ft (in/sec) |
|-----------------|--------------------------|--------------------------|--------------------------|---------------------------|
| Large Bulldozer | 0.089 | 0.031 | 0.017 | 0.011 |
| Loaded trucks | 0.076 | 0.027 | 0.015 | 0.010 |
| Jackhammer | 0.035 | 0.012 | 0.007 | 0.004 |
| Small Bulldozer | 0.003 | 0.001 | 0.001 | <0.001 |

Source: FHWA Transit Noise and Vibration Impact Assessment

The calculation to determine PPV at a given distance is:

$$PPV_{distance} = PPV_{ref} * (25/D)^{1.5}$$

Where:

PPV_{distance} = the peak particle velocity in inches/second of the equipment adjusted for distance,

PPV_{ref} = the reference vibration level in inches/second at 25 feet, and

D = the distance from the equipment to the receiver.

Pipeline installation along narrow roadways such as in Area M-2 will use small equipment, not bulldozers. Bobcats and skid steer loaders have a much lower vibration potential than the equipment shown above. Jackhammers may be used to open trenches, but even at a 25 foot distance jackhammer operation could be within the level of human perception but is far below any possible cosmetic damage level. Most trenching will be 40 feet from any sensitive use. In addition, jackhammers would only operate for a very limited amount of time in the vicinity of any single household.

Conclusion

Construction vibration would not exceed any damage thresholds at the nearest sensitive uses even applying the more stringent threshold for older, fragile structures. The construction of the proposed WVWRF and conveyance pipeline alignment will comply with both County and City Code; therefore, with implementation of the above contingency mitigation measures to ensure that the project complies with City and County ordinances, impacts from vibration generated by construction are considered less than significant.

4.13.4.3 Operational Noise Impacts

This section addresses the following questions included in the CEQA Appendix G guidelines:

1. **Would the Project result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**
3. **Would the Project result in a substantial permanent increase in ambient noise levels in the Project vicinity above existing levels without the proposed Project?**

The AIA did not model operational noise because the only Facility that will generate noise once constructed is the proposed WVWRF. The proposed WVWRF site is located 1.8 miles from the closest residence; no other sensitive receptors are located within the vicinity of the site. Therefore, noise impacts from construction or operation of the WVWRF will be minimal due to the 1.8 mile distance separation to the closest residence. Noise levels will typically be lower than background ambient noise and will not be sleep-disturbing at the closest homes. Therefore, given the substantial distance separating the WVWRF from the nearest sensitive receptor, the proposed project is not anticipated to result in a substantial permanent increase in ambient noise levels in the Project vicinity above existing levels without the proposed Project. Furthermore, based on the discussion herein and above, the proposed project would not result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies during operation, and during construction, with implementation of contingency mitigation measures identified below. The project would have a less than significant potential to result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

4.13.4.4 Air Traffic Noise Impacts

This section addresses the following questions included in the CEQA Appendix G guidelines:

5. **Would the project—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—expose people residing or working in the Project area to excessive noise levels?**

6. Would the project—for a project within the vicinity of a private airstrip—expose people residing or working in the Project area to excessive noise levels?

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 south of the planning area. 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)¹. Given that the proposed WVWRF site—which is the closest WVWRF component to the Palm Springs International Airport—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 these issues are considered less than significant.

4.13.5 Avoidance, Minimization and Mitigation Measures

Project construction activities may cause CEQA noise thresholds to be exceeded; however, Short-term construction noise intrusion and vibration impacts will be limited by conditions on construction permits requiring compliance with the hours identified in the mitigation measures below. Additionally, mitigation measures to ensure that standard construction practices are employed by the contractor employed by MSWD to develop the project. Even though these measures are standard Conditions of Approval, these measures have been added as mitigation.

Construction Noise Mitigation Measures

Though construction noise is temporary, intermittent and of short duration, and will not present any long-term impacts, the following measures would reduce any noise level increases produced by the construction equipment to the nearby noise sensitive residential land uses. In addition to adherence to the City of Desert Hot Springs and County of Riverside policies found in the respective Noise Elements and Municipal Codes, limiting the construction hours of operation, the following are mandatory measures to be implemented during project construction.

- 4.13-1** *During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.*
- 4.13-2** *The construction contractor shall place all stockpiling and staging activities as far as practicable from dwellings.*
- 4.13-3** *Within the City of Desert Hot Springs, construction shall be limited to the hours of 7 am to 5 pm Monday thru Saturday. During daylight savings time, construction shall be limited to the hours are 6 am to 6 pm. Construction shall not be permitting on Sundays.*
- 4.13-4** *Within the County of Riverside, whenever a construction site is located within one-quarter (1/4) mile of an occupied residence(s), construction activities shall be limited to the hours of 6:00 a.m. and 6:00 p.m. during the months of June through September and between the hours of 6:00 a.m. and 7:00 p.m. during the months of October through May.*

¹<http://www.palmspringsca.gov/home/showdocument?id=39630>

With implementation of the proposed mitigation measure, impacts can be reduced below thresholds of significance.

4.13.6 Cumulative Impacts

The noise forecast data contained in the City of Desert Hot Springs and County of Riverside General Plans indicate that cumulative noise levels in the project area will increase over time. This is due to the forecast build-out environment within the Coachella Valley (inclusive of the City of Desert Hot Springs and Unincorporated areas surrounding the City that are part of Riverside County). The implementation of the WVWRP does not constitute a significant contribution to these cumulative increases in the noise environment. Therefore, the cumulative noise impacts from the proposed project are considered less than significant.

4.13.7 Unavoidable Significant Adverse Impacts

The noise evaluation presented above indicates that the proposed project does not have the potential to cause potentially significant and unavoidable adverse noise impacts from implementing the WVWRP. As described above, mitigation measures have been identified that can reduce both short-term noise impacts below a significant level; long-term noise impacts from the operation of the WVWRF are considered less than significant without the need for added mitigation. Noise conditions will be unavoidably altered by implementation of the proposed project, in both the short- and long-term, but this change in noise condition is not forecast to result in significant adverse impacts with implementation of mitigation measures listed above. Thus, sound levels, noise, will experience a small unavoidable adverse increase in noise, but this increase will not reach a level of a significant unavoidable adverse noise impact.

4.14 POPULATION AND HOUSING

4.14.1 Introduction

This subchapter will evaluate the environmental impacts to the issue areas of population and housing resources from implementation of the proposed Project, the Mission Springs Water District (MSWD) West Valley Water Reclamation Program (WVWRP). MSWD proposes to implement the WVWRP, which includes constructing municipal wastewater collection and treatment systems that will facilitate the elimination of individual septic systems that overlie the Mission Creek and Desert Hot Springs aquifers. Please refer to Appendix 1, Volume 2 for a copy of the plans that make up the WVWRP, which includes the Preliminary Design Report for the West Valley Water Reclamation Facility (WVWRF), the Comprehensive Wastewater Facilities Strategic Plan for MSWD, and the West Valley Sewer Conveyance System Technical Memorandum.

This document is a full-scope Program Draft Environmental Impact Report (DEIR) for the above-described project and all of the standard issues related to population and housing resources identified in the Standard Environmental Checklist Form provided in Appendix G of the State CEQA Guidelines are analyzed in this DEIR.

1. Would the Project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
2. Would the Project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?
3. Would the Project 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)?

These issues pertaining to population and housing will be discussed below as set in the following framework:

- Introduction
- Environmental Setting: Population and Housing
- Thresholds of Significance
- Potential Impacts
- Project-Specific Mitigation Measures
- Cumulative Impact
- Unavoidable Adverse Impacts

The City of Desert Hot Springs General Plan—Land Use Element and Housing Element, the Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) 2012-2035 Sustainable Communities Strategy (SCS) Program EIR (PEIR), the SCAG RTP SCS 2016-2040 Appendix, and the SCAG Final 2016 Profile of the City of Desert Hot Springs were used in the analyses presented in this Subchapter. No comments specific to this topic were received in response to the Notice of Preparation or at the Scoping Meeting.

4.14.2 Environmental Setting

4.14.2.1 Regulatory Setting

State

State law requires local communities to plan for enough housing to meet projected growth in California. Article 10.6 of the California Government Code (Sections 655801–65590) requires each city and county to prepare a Housing Element within its General Plan which is to be submitted (generally every eight years) to the State Housing and Community Development (HCD) Department for certification.

Regional: Southern California Association of Governments

SCAG¹ identifies the number and type of housing units that each local jurisdiction should plan to accommodate through the Regional Housing Needs Assessment (RHNA) process. According to SCAG, “the RHNA does not necessarily encourage or promote growth, but rather allows communities to anticipate growth, so that collectively the region and subregion can grow in ways that enhance quality of life, improve access to jobs, promotes transportation mobility, and addresses social equity, fair share housing needs.” The SCAG RTP 2012-2035 SCS PEIR analyzes the population, housing and employment impacts of implementing the 2016 RTP SCS to accommodate growth and provide for transportation needs.

The SCAG region, the second most populous metropolitan region in the nation, had approximately 18.2 million residents in 2015². The annual average growth rate for the 2010-2015 period was only 0.7 percent, which was lower than the 0.9 percent growth rate of the 2000-2010 period. According to the SCAG RTP SCS 2016-2040 Appendix, the population of Riverside County grew by 0.2% or by 124,638 persons between 2010 and 2015, and is planned to grow by 2.0% or 851,146 persons between 2015 and 2040. Riverside County also has the highest homeownership rate (68.3 percent) in the SCAG region whereas Los Angeles County has the lowest rate at 48.6 percent. Riverside County had 692,725 households in 2011. The population of Riverside County in 2016 was 2,308,610 according to SCAG.

Final Growth Forecast estimates that the population of the City of Desert Hot Springs will increase from 27,800 people in 2012 to 58,900 in 2040. It further estimates that households will increase from 9,100 in 2012 to 21,900 in 2040. Employment was estimated as 3,700 in 2012 and forecast to increase to 12,900 in 2040.

Local

According to the City of Desert Hot Springs General Plan, the 1990 permanent population in Desert Hot Springs was 11,668 and had increased to about 15,398 by January 1999. The City's 1990 average household size was 2.52 in 1990 and had risen to about 2.787 by 1999. Based upon the Land Use Map, the General Plan has the potential to generate approximately 63,889 new dwelling units. Based upon an average household size of 2.787 persons, the General Plan could add about 178,058 additional people to the City's population. When combined with the City's 1999 population of 15,398 residents, the City's maximum peak seasonal population could

¹ Southern California Association of Governments includes the counties of Los Angeles, Orange, Riverside, San Bernardino, Ventura, and Imperial.

² http://scagrtpscscs.net/Documents/2016/draft/d2016RTPSCS_DemographicsGrowthForecast.pdf

reach approximately 193,456. The City experiences a seasonal increase in population during the colder months, starting around the month of November and ending around the month of April.

The City of Desert Hot Springs General Plan Housing Element provide both the citizens and public officials with a comprehensive understanding of the housing needs within the City, and to set forth policies and programs that will enable the City to reach its defined housing goals.

Housing Element: Goal 1

A variety of housing types that meet the diversity of needs within the City.

Housing Element: Goal 2

Expanded housing opportunities for all residents of Desert Hot Springs.

Housing Element: Goal 3

City housing stock which meets the needs of the City's lower income households.

Housing Element: Goal 4

The preservation and maintenance of the City's affordable housing supply in a safe and sanitary condition.

4.14.2.2 Environmental Setting: Population and Housing of the Site and Vicinity

The proposed WVWRF site is currently vacant, with the exception of the MSWD well that is located in the northeast corner of the project site that will remain in place at the WVWRF site. North of the WVWRF site is a solar farm, and beyond that is mostly open space with sparse development. West of the project proposed WVWRF site is open space. Several thousand feet to the west of the project site is the development (including an Arco Gas Station, a Shell Gas Station, and other related development) just off of the I-10 exit at Indian Canyon Drive. East of the proposed WVWRF site is open space and a wash. South of the proposed WVWRF site is open space and the I-10. In short, the area surrounding the proposed WVWRF site consists mostly of open space and with sparse development in the vicinity of the project site. The pipeline locations are within areas that contain development—residential, commercial, and industrial in nature—and within areas that contain open space. Area M-2 is a densely populated residential area and the project would which connect each to the proposed new sewer pipeline, which would allow individuals in Area M-2 who currently utilize a septic system to hire a contractor to dig up the lids to the septic tank, pump out the tank, and decommission the tank in accordance with SWRCB guidelines.

The proposed WVWRF site is designated for Light Industrial (LI) use by the City of Desert Hot Springs General Plan, while the proposed sewer pipeline alignment traverses through the following land uses that are part of the Desert Hot Springs I-10 Community Annexation Land Use: Light Industrial (LI), Rural Desert (RD), Commercial Retail (CR), Open Space-Water (OS-W), Rural Residential (RR), and Medium Density Residential (MDR). The Groundwater Quality Protection Program (GQPP) Area M-2 (to be served by the WVWRF) is not within the Desert Hot Springs I-10 Community Annexation Land Use, and is designated for Residential Low Density (R-L). Refer to Figure 4.11-1 for the Desert Hot Springs General Plan Land Use Map.

No housing is proposed as part of the WVWRP. As such, the key population and housing issues for the proposed Project are the potential for the proposed development to indirectly induce

substantial population growth through employment. The proposed VVWRP is considered growth accommodating, not growth inducing, and, as such, it would allow for the City and MSWD Service Area to accommodate future growth through providing wastewater treatment and associated sewer pipeline connections to a greater population than it presently serves.

4.14.3 Thresholds of Significance

As stated in the preceding section, the standard issues related to population and housing resources identified in the Standard Environmental Checklist Form provided in Appendix G of the State CEQA Guidelines are analyzed in this DEIR. A project may have a significant impact on population and housing resources if it will:

1. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere;
2. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere;
3. 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).

4.14.4 Potential Impacts

1. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

There is no existing housing located within the VVWRF site, and the installation of the conveyance pipeline and new sewer connections will occur within existing roadways and thoroughways, and will not displace any of the existing housing to which the new sewer conveyance lines will be connected. The proposed Project would not displace any existing housing, and therefore, it would not necessitate the construction of replacement housing elsewhere. As a development of permanent infrastructure necessary to support the MSWD service area, the proposed Project is not forecast to create a demand for additional housing. Therefore, this project has no potential to cause any adverse impact regarding the need for replacement housing elsewhere. No mitigation is required.

2. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

There is no existing housing located within the VVWRP footprint; therefore, the project has no potential to displace any people. The proposed Project would not displace any people from existing housing, and therefore, it would not necessitate the construction of replacement housing elsewhere. The proposed Project will not create any significant demand for housing, as it will not employ a substantial number of persons such that construction of replacement housing would be necessary to accommodate the indirect growth that could occur from the creation of about 20 new jobs as part of the VVWRP. There are about 296 homes, apartments, condos, and townhouses for sale within the City of Desert Hot Springs and Sphere of Influence (SOI) area and about 64 units available for rent within the City of Desert Hot Springs and SOI area as of January 11, 2019.³ Given the availability of housing for rent and for sale within the area, the

³ https://www.zillow.com/homes/for_rent/Desert-Hot-Springs-CA/51701_rid/34.114647,-116.153641,33.677497,-116.6391_rect/10_zm/

project would not displace people, necessitating the construction of replacement housing, and no mitigation is required.

3. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The proposed Project's impacts to population and housing resources will result from implementing the overall WVWRP within the City of Desert Hot Springs. The project includes the development of the WVWRF at a site that is mostly vacant—with the exception of an existing MSWD well—and developing a sewer conveyance pipeline system that will connect new customers to MSWD's service area, which would facilitate the elimination of the use of individual septic systems at the new connections. The proposed program would not directly induce population growth within the project area; however, the program will require temporary and permanent employment to construct and operate the proposed components of the WVWRP, as outlined above and within the Project Description.

The temporary employment opportunities are expected to be filled by workers within the local economy. Maximum temporary employment will occur during construction of the WVWRF. An estimated 50 employees are anticipated on the WVWRF during its construction. The unemployment rate within the City—which has an estimated population of about 28,750 persons as of August 2018—averaged of 6.30 percent⁴ (about 1,811 persons) in August of 2018, while unemployment within the County of Riverside—which has an estimated population of about 2,423,000 as of 2017—averaged 4.7 percent⁵ (about 113,881 persons) in August of 2018. Given that there was an average of 1,811 unemployed persons within the City, and even more unemployed persons within the surrounding area in Riverside County, it is reasonable to assume that there are available workers for the construction activities associated with the proposed WVWRP improvements. Because the majority of the work force would be located in the Coachella Valley Region, there would be an adequate number of workers within the Coachella Valley that could be available for construction jobs and could commute to the temporary construction jobs rather than relocate and induce growth in the area.

The WVWRP would expand MSWD's GQPP to preserve the groundwater quality within the area, and expand MSWD's sewer service area by facilitating the removal individual septic systems and treating wastewater for constituents of concern at the proposed WVWRF. Through the implementation of the WVWRP, MSWD would be able to continue to provide wastewater treatment—with the potential to provide recycled water treatment services in the future—and to meet forecasted demand and growth in the service area. The proposed WVWRP improvements that would expand MSWD's services are consistent with development anticipated by SCAG, the City of Desert Hot Springs General Plan and expected population growth. By providing public services to meet population expectations, MSWD would lessen impacts to public services that could result from implementation of City land use policies. However, MSWD has no control over land use designations within its service area, except through collaboration with the City of Desert Hot Springs, which is outlined in the General Plan through several related Goals, Policies and Programs. Generally, upgrading public services to meet modern standards of efficiency, water supply reliability, and public health would occur irrespective of growth rates in the service area. Therefore, the implementation of the proposed WVWRP facilities would result in less than significant impacts related to indirect inducement of population growth.

⁴ https://ycharts.com/indicators/desert_hot_springs_ca_unemployment_rate

⁵ <https://fred.stlouisfed.org/series/CARIVE5URN>

Operation of the proposed facilities would require a maximum of 20 future new permanent employees to operate the WVWRF. These employees are also expected to be drawn from existing population. As a worst-case assumption, the 20 new employees could result in the demand for 20 new housing units. An increased demand of 20 new housing units is within the housing projections anticipated to accommodate the population growth expected to occur within the MSWD's service area. This increase would be minimal and would not directly induce substantial population growth in the MSWD's service area. Therefore, the implementation of the proposed WVWRP would result in less than significant impacts related to inducement of population growth.

Based on the analysis presented in the preceding text, the proposed Project would not induce population growth beyond that which has been planned for in the City General Plan or SCAG planning documents. Therefore, no significant population growth impact would occur, and no mitigation is required.

4.14.5 Avoidance, Minimization and Mitigation Measures

The proposed Project is consistent with applicable housing and population planning document forecasts. No significant adverse impacts related to Population and Housing resources and issues have been identified, and no mitigation measures are required.

4.14.6 Cumulative Impacts

The proposed WVWRP would not directly induce population growth within MSWD's service area. However, the WVWRP may result in an indirect increase in population due to the anticipated 20 new employees required to operate the WVWRF. The WVWRP would contribute to the cumulative construction of public services and utilities by local jurisdictions within the MSWD service area. The Coachella Valley Region has experienced significant population growth in the past decade and is anticipated to continue to experience significant population growth in the foreseeable future. Since MSWD has no direct control over land use designations or growth within its service area, the implementation of the WVWRP would not directly or indirectly induce substantial population growth. Therefore, implementation of the WVWRP would not have a less than cumulatively considerable contribution to population growth inducement, and therefore, the proposed WVWRP would not have a cumulatively significant or unavoidable adverse impact on population and housing if implemented as proposed.

4.14.7 Unavoidable Significant Adverse Impacts

The proposed WVWRP would not exceed official regional or local population projections and would not induce substantial population growth in an area, either directly, by proposing new homes, or indirectly through the extension of roads, sewer and other infrastructure. Therefore, based on the data and analysis presented in this Subchapter, implementation of the proposed Project would not cause significant unavoidable adverse population and housing impacts relative to the existing population and housing forecasts for the City of Desert Hot Springs.

4.15 PUBLIC SERVICES

4.15.1 Introduction

This Subchapter evaluates the environmental impacts to the issue areas of public services from implementation of the proposed Project, the proposed Mission Springs Water District (MSWD or District) West Valley Water Reclamation Program (WVWRP or Program) Program Draft Environmental Impact Report (DEIR).

Public services consist of the following topics/issues that are provided by local government to meet a community's needs for safety and education: Fire Protection and Emergency Response Services; Sheriff Law Enforcement Services; School/Education Services; Library Services; and Health Services. Of the above services, all but Health Services are typically provided solely by local government. In contrast, some Health Services are provided by local government, but most Health Services are available through private businesses (doctors, hospitals, etc.). Therefore, health services will not be further analyzed in this document. Each of the referenced Public Service issues is addressed in a separate discussion/evaluation below.

This document is a full-scope DEIR for the above-described project and all of the standard issues related to land use and planning resources identified in Appendix G of the CEQA Guidelines are analyzed in this DEIR.

- Fire Services
- Police Protection
- Schools
- Library

4.15.2 Fire Protection

The proposed West Valley Water Reclamation Facility (WVWRF) site and pipeline conveyance footprint are located within the service area of the Riverside County Fire Department, which provides Fire Protection and Emergency Response Services to the City of Desert Hot Springs. If the Project is implemented as proposed, it will result in the development of the WVWRF and development of a sewer conveyance pipeline alignment that will connect new customers to MSWD's service area, which would facilitate the elimination of the individual septic systems at the new connections.

The proposed Program would develop a mostly undeveloped site, which has a potential to result in an increased demand for Fire Protection and Emergency Response Services. The potential significance of this increase in demand for Fire Services is evaluated in the following text. Mitigation measures that need to be incorporated to reduce or control impacts to a less than significant impact level are identified for implementation.

The following reference documents were used in preparing this section of the DEIR:

- City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000
- County of Riverside, *Ordinance No. 787 – Fire Protection Ordinance*
- County of Riverside. *Ordinance No. 659.7 – Establishing Development Impact Fees*

- Riverside County Fire Department, *Fire and EMS Strategic Master Plan, 2009-2029*. November 2009
- California Building Standards Commission, *2016 California Fire Code*. January 2017
- National Fire Protection Association, *NFPA Code 1710 Implementation Guide*, 2002.

4.15.2.1 Environmental Setting

The footprint of the WVWRP is under the jurisdiction of the Riverside County Fire Department (RCFD), which operates in coordination with the California Department of Forestry and Fire Protection (CalFire). Desert Hot Springs is situated on 24 square miles of land in the Coachella Valley at an elevation of 1,076 feet. According to the *Riverside County Fire Department Operational, Standards of Over and Contract Fee Analysis Final Report*, dated March 2016, Desert Hot Springs has two fire stations: Fire Station 36 has one Type 1 engine (staffed); Station 37 has one Type 1 engine (staffed) and one Type 1 reserve engine (unstaffed). An unstaffed squad is also kept at Station 37. Combined, Stations 36 and 37 responded to approximately 5,746 calls in Fiscal Year (FY) 2015 year.

Riverside County Fire Station 37, which is located at 65958 Pierson Boulevard, is equipped with one Type -1 Fire Engine and staffed with three personnel providing paramedic service. This station is located approximately 3.62 miles north of the WVWRP site, and between 2 and 3.5 miles from the proposed conveyance pipeline alignment footprint.

Riverside County Fire Station 36, which is located at 11535 Karen Avenue, is equipped with one Type-1 Fire Engine and staffed with three personnel providing paramedic service. This station is located approximately 4.15 miles northwest of the WVWRP site, and between 3.35 and 5 miles from the proposed conveyance pipeline alignment footprint.

The footprint of the proposed WVWRP is also located adjacent to the RCFD Coachella Planning Area, which covers 661 square miles. Six fire stations are located within the Coachella Planning Area. Emergency response to the project site is also available through two of the six Riverside County Fire stations within the Coachella Planning Area, one in Sky Valley/Desert Edge, and the other in Thousand Palms. The Coachella Planning Area had 7,200 calls in FY 2015.

The Sky Valley/Desert Edge Station 56 is located at 72985 Dillion Road. It is equipped with one Type-1 Fire engine and staffed with three personnel providing paramedic service. The station is located approximately 8 miles east of the WVWRP site, and between 4.45 and 8 miles from the proposed conveyance pipeline alignment footprint.

The Thousand Palms Station, Station No. 35, is located at 31920 Robert Road. It is equipped with a Type-I Fire Engine, and staffed with three personnel providing paramedic services. Station 35 has one county-owned Type 1 engine (staffed) and one breathing support unit (staffed). A reserve breathing support unit is also here. This station is located approximately 9.7 miles southeast of the WVWRP site, and between 9 and 10.8 miles from the proposed conveyance pipeline alignment footprint.

County Fire dispatches all calls through its centralized Emergency Command Center, where responding stations are determined based on incident location and need.

The level of service for fire protection services is expressed in terms of response time, rather than the use of service ratios of other performance objectives. There are no national standards

for fire protection service response times; however, 8-10 minutes is believed to be sufficient for most communities. For areas with little or no development, long response times are acceptable. However, for Central and Western Riverside County, which are the most developed and continue to experience growth, a response time of about 10-12 minutes is the Riverside County Fire Department's Goal. The overall County of Riverside Fire Department total response times for FY 2015 are listed in Table 4.15.2-1 below.

**Table 4.15.2-1
TOTAL RESPONSE TIMES (FY 2015)**

| Population Density | Average Response Time FIRE INCIDENTS | Average Response Time EMS¹ INCIDENTS |
|---------------------------|---|--|
| Urban ² | 9:15 | 7:14 |
| Suburban ³ | 10:08 | 7:56 |
| Rural ⁴ | 11:17 | 8:09 |
| Outlying ⁵ | 13:37 | 9:03 |
| Overall Combined: | 10:24 | 7:37 |

¹ EMS: Emergency Medical Services

² 2000+ people per square mile

³ 1001-2000 people per square mile

⁴ 101-1000 people per square mile

⁵ 0-100 people per square mile

During Fiscal Year (FY) 2015, the response time for the Planning Area of Desert Hot Springs was an average of **7:35 minutes**, while the response time for Area 7-Coachella (Unincorporated County Area) was an average of **8:45 minutes**. According to the *Riverside County Fire Department Operational, Standards of Over and Contract Fee Analysis Final Report*, dated March 2016. The proposed WVWRF site is located in an outlying area, in which the average response time is estimated to be between 9:03 and 13:37 minutes. The pipeline alignment—which will generally only have a potential to require fire protection services during construction because once installed the pipeline will be located below ground—traverses through suburban, outlying, and urban population densities, and as such the average response time it is estimated to vary between 7:14 minutes and 13:37 minutes depending on where along the pipeline alignment the proposed conveyance line is being installed.

Future demand will be modified by the Project because it will increase demand for Fire Protection and Emergency Response service, and the existing station's ability to provide adequate fire and emergency response service through developing the mostly vacant WVWRF site with the proposed WVWRF.

Lastly, according to the CalFire Western Riverside County Fire Hazard Severity Zones Map in State Responsibility Area (Figure 4.15-1) and the CalFire Western Riverside County Very High Fire Hazard Severity Zones in Local Responsibility Area (Figure 4.15-2), the proposed Project is not located within any Fire Hazard Severity Zone.

4.15.2.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

Result in a substantial adverse physical impact associated with the provisions 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 fire protection services.

Relevant Goals, Policies, and Programs outlined in the Desert Hot Springs General Plan are:

Fire and Police Protection Element: Goal 1

A high level of police and fire protection and service.

Fire and Police Protection Element: Policy 1

All new and improved developments shall be reviewed for their impact on safety and the provision of police and fire protection services.

Fire and Police Protection Element: Program 1A

Consult and coordinate with the Riverside County Fire Department to establish potential fire station locations to provide for future adequate levels of services.

Fire and Police Protection Element: Policy 2

Enforce fire standards and regulations in the course of reviewing building plans and conducting building inspections.

Fire and Police Protection Element: Policy 3

Potentially hazardous material use and storage shall be regulated by the City and other appropriate agencies.

Fire and Police Protection Element: Program 3A

The siting of facilities which involve the storage of hazardous, flammable or explosive materials shall be conducted in such a manner as to assure the highest level of safety in strict conformance with the Uniform Fire Code and other applicable codes and regulations.

Fire and Police Protection Element: Policy 5

Emergency police, fire, and paramedic vehicle access shall be provided with all new development to the satisfaction of the City.

4.15.2.3 Potential Impacts

- **Would the Project result in a substantial adverse physical impact associated with the provisions 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 fire protection services?**

RCFD has indicated that for Central and Western Riverside County, which are the most developed and continue to experience growth, a response time of about 10-12 minutes is the RCFD's Goal. The proposed WWRP includes the development of the WWRF and installation of a new sewer pipeline alignment within existing roadways and thoroughways that would facilitate the removal of individual septic systems through new MSWD sewer connections. The proposed WWRF would not require expansion of existing fire protection facilities. The

development of the WVVRF at the proposed site would not directly induce substantial population growth within the MSWD service area, which is discussed in detail in Chapter 4.15, Population and Housing. Approximately 20 new fulltime employees have been estimated to be required to operate the proposed WVVRF. This increase would be minimal and would not require new fire facilities to maintain response ratios, service ratios, or other measures of performance. As a worst-case assumption, the 20 new fulltime employees could result in the demand for 20 new housing units. An increased demand of 20 new housing units is within the housing projections anticipated to accommodate the population growth expected to occur within the MSWD service area. Operational activities associated with the proposed WVVRF could require fire department service in the unlikely event of a hazardous materials emergency. However, the prior to the treatment plant upgrades, a Hazardous Materials Business Plan (HMBP) would be required. The HMBP would be required to be submitted and kept on file with the Riverside County Fire Department. Although the proposed WVVRF development may result in an additional demand on fire protection services, the implementation of the HMBP would result in a nominal increase in service. The indirect increase in population and the use of hazardous materials associated with the proposed development of the WVVRF would result in a nominal increase in fire services. As a result, no new fire facilities are anticipated to be required to maintain RCFD's response time goal for Central Riverside County as a result of the development of the WVVRF.

As stated above, the remainder of the WVVRF includes the development of wastewater conveyance pipelines that would enable MSWD to facilitate the removal of individual septic systems within the City of Desert Hot Springs by creating new connections to MSWD's wastewater collection system. Once constructed, the proposed pipeline alignment will be located underground within existing roadways and throughways, and will therefore not demand fire protection services to operate. Construction activities associated with the proposed WVVRF and the development of the proposed sewer conveyance pipeline could require fire department service in the unlikely event of an emergency. However, given the availability and efficiency of fire protection and EMS services within the WVVRF footprint, the temporary increase in demand for fire protection services that might arise during construction would be less than significant and would not require the development of any new fire facilities.

Employment opportunities associated with the construction activities would be temporary, are assumed to be filled by the local economy based on the available unemployed population, and is not forecast to result in the demand for housing. Because the proposed improvements would not result in the permanent increase in residences or population, no increase in the need for new fire protection facilities would occur. As a result, no environmental effects would occur because construction of a new fire facilities would not be required.

4.15.2.4 Avoidance, Minimization and Mitigation Measures

Payment of development impact fees pursuant per Riverside County Ordinance 659.7 is not required for infrastructure projects such as MSWD's proposed WVVRF. The impacts from the Program to fire protection services will be less than significant without the need for mitigation based on the discussion above.

4.15.2.5 Cumulative Impacts

The cumulative impacts to public services from implementation of the WVVRF could result from growth within MSWD's service area. According to the Riverside County Local Agency Formation

Commission (LAFCo), the western Coachella Valley is a high growth area, with some of the highest projected growth rates within Riverside County¹. Desert Hot Springs is anticipated to grow by about 6.1% annually. As cumulative development occurs within the project area, the MSWD service area may experience substantial increases in the demand for fire protection services, including personnel, equipment, and/or facilities. Substantial increases in the demand for these services could result in the need for new fire facilities. Depending on the location of the new fire facilities, there could be significant impacts from the construction and operation of new facilities; however, generally new development would contribute fees as adopted by the Riverside County Board of Supervisors to mitigate these impacts. These fees would fund improvements to existing fire facilities and development of new fire facilities. Because the location of any new facilities are unknown, impacts are speculative. However, for this analysis, it is assumed that cumulative development could result in significant environmental impacts from the construction and operation of new fire facilities. Because the proposed project would result in a nominal increase in demand for fire services, the project would contribute a less than cumulatively considerable need for fire services. Therefore, the project's contribution to cumulative environmental effects associated with the construction of any new fire facilities would be less than cumulatively considerable and thus less than cumulatively significant.

4.15.2.6 Unavoidable Significant Adverse Impacts

The foregoing evaluation demonstrates that though the Project will cause a nominal unavoidable change or increase in demand for Fire Services within the Riverside County Fire Department service area, this increase would not cause an unavoidable significant impact to Fire Protection and Emergency Response because demand is available to reduce this potential impact through expansion of service capability to a less than significant impact level on these services. Project fire protection impacts are less than significant.

4.15.3 Police Protection

The City of Desert Hot Springs maintains its own police department. The Desert Hot Springs Police Department is located at 65-950 Pierson Boulevard, next to the Desert Hot Springs City Hall. If the WVWRP is implemented as proposed, it will result in development of a wastewater treatment plant on a site that is currently mostly vacant with the exception of an existing well, as well as the development of a sewer conveyance pipeline alignment and associated pipeline connection within existing roadways and throughways. The increase in population due to this proposed change in land use will increase demand for police services. The potential significance of this increase in demand for police services is evaluated in the following text and the mitigation measures that need to be incorporated to reduce or control impacts to a less than significant impact level are identified for implementation.

The following reference documents were used in preparing this section of the DEIR:

- City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000
- City of Desert Hot Springs Police Department

¹ https://lafco.org/wp-content/uploads/documents/archives/2.0_RegionalPopulationGrowth.Final_Draft.pdf

4.15.3.1 Environmental Setting

The WVWRP footprint is currently under the jurisdiction of the Desert Hot Springs Police Department, located at 65-950 Pierson Boulevard, Desert Hot Springs, CA 92240. The station is located approximately 8 miles east of the WVWRP site, and between 4.45 and 8 miles from the proposed conveyance pipeline alignment footprint. Based on the most recent available data, the Desert Hot Springs Police Department employs 32 sworn officers and 9 sworn support officers. The Desert Hot Springs Police Department desires to maintain a ratio of 1.2 officers per 1,000 persons. The current ratio is about 0.88 officers per 1,000 persons.

The Desert Hot Springs Police Department provides high visibility preventive patrol, enforcement of local, state and federal laws and ordinances, traffic enforcement, traffic collision investigation, and non-criminal requests for service. The Detective Bureau conducts all major crimes and follow-up investigations.

According to the City of Desert Hot Springs General Plan, the average response times to a code 3 (extreme emergency) was 2.5 minutes, and average response time to a code 1 (non-emergency) was 8 minutes. All calls are prioritized, and response time is contingent on the number of calls pending and their urgency.

4.15.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

Result in a substantial adverse physical impact associated with the provisions 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 police protection services?

Relevant Goals, Policies, and Programs outlined in the Desert Hot Springs General Plan are:

Fire and Police Protection Element: Goal 1

A high level of police and fire protection and service.

Fire and Police Protection Element: Policy 1

All new and improved developments shall be reviewed for their impact on safety and the provision of police and fire protection services.

Fire and Police Protection Element: Policy 5

Emergency police, fire, and paramedic vehicle access shall be provided with all new development to the satisfaction of the City.

Fire and Police Protection Element: Policy 6

Utilize crime prevention principles through the integration of project planning which results in “defensible space” or high security designs as a means of providing increased security in residential, commercial and industrial development.

4.15.3.3 Potential Impacts

- **Would the Project result in a substantial adverse physical impact associated with the provisions 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 police protection services?**

The City of Desert Hot Springs Police Department has established a service ratio of 1.2 sworn officers per 1,000 residents. Just as discussed under Fire Protection above, the development of the WVWRF at the proposed site would not directly induce substantial population growth within the MSWD service area, which is discussed in detail in Chapter 4.15, Population and Housing. Approximately 20 new fulltime employees have been estimated to be required to operate the proposed WVWRF. This increase would be minimal and would not require expanded police protection to maintain response times, service ratios, or other measures of performance. As a worst-case assumption, the 20 new fulltime employees could result in 20 new residents of the City of Desert Hot Springs. An increased population of 20 new persons within the City is within the population projections anticipated to accommodate the population growth expected to occur within the MSWD service area. Operational activities associated with the proposed WVWRF are unlikely to require police protection unless a random trespass occurs. Although the proposed WVWRF development may result in an additional, if nominal, demand on police protection services, the demand would not require the City to employ additional officers because the increase in population that could result from project implementation is nominal considering a Project would have to generate 1,000 new residents to trigger the employment of an additional officer. As a result, no new police protection facilities are anticipated to be required to maintain the Desert Hot Spring Police Department's response time goal as a result of the development of the WVWRF.

The remainder of the WVWRP includes the development of wastewater conveyance pipelines that would enable MSWD to facilitate the removal of individual septic systems within the City of Desert Hot Springs by creating new connections to MSWD's wastewater collection system. Once constructed, the proposed pipeline alignment will be located underground within existing roadways and throughways, and will therefore not demand police protection services to operate. Construction activities associated with the proposed WVWRF and the development of the proposed sewer conveyance pipeline are unlikely to demand police protection services, except in the event of random trespass. Therefore, the potential demand for police protection services that might arise during construction would be less than significant and would not require the development of any new facilities to support the project.

Employment opportunities associated with the construction activities would be temporary, are assumed to be filled by the local economy based on the available unemployed population, and is not forecast to result in the demand for housing. Because the proposed improvements would not result in the permanent increase in residences or population, no increase in the need for new police protection facilities would occur. As a result, no environmental effects would occur because construction of a new police facilities would not be required.

4.15.3.4 Avoidance, Minimization and Mitigation Measures

Payment of development impact fees is not required for infrastructure projects such as MSWD's proposed WVWRP. The impacts from the Program to police protection services will be less than significant without the need for mitigation based on the discussion above.

4.15.3.5 Cumulative Impacts

Similar to the discussion under Fire Protection above, the cumulative impacts to public services from implementation of the WVWRP could result from growth within MSWD's service area. As stated above, Desert Hot Springs is anticipated to grow by about 6.1% annually. As cumulative development occurs within the project area, the MSWD service area may experience substantial increases in the demand for police protection services, including staff, and/or facilities. Substantial increases in the demand for these services could result in the need for new police officers. However, generally new development would contribute fees as adopted by the City to mitigate these impacts. These fees would fund the expansion of police protection services and any new or updated equipment needed within the Police Department's service area. However, for this analysis, it is assumed that cumulative development could result in significant environmental impacts from the need for new police protection services, particularly of new police officers. Because the proposed project would result in a nominal increase in demand for fire services, the project would contribute a less than cumulatively considerable need for fire services. Therefore, the project's contribution to cumulative environmental effects associated with the need for expanded police protection services would be less than cumulatively considerable and thus less than cumulatively significant.

4.15.3.6 Unavoidable Significant Adverse Impacts

The foregoing evaluation demonstrates that though the Project will cause a nominal unavoidable change or increase in demand for Police Protection Services within the Desert Hot Springs Police Department service area, this increase would not cause an unavoidable significant impact to Police Protection Services. Therefore, Project police protection impacts are less than significant.

4.15.4 School / Education Services

The proposed WVWRF site and pipeline conveyance footprint are located within the Palm Spring Unified School District (PSUSD), which covers the Cities of Palm Springs, Cathedral City, Rancho Mirage, Thousand Palms, and Desert Hot Springs. If the Project is implemented as proposed, it will result in the development of the WVWRF and development of a sewer conveyance pipeline alignment that will connect new customers to MSWD's service area, which would facilitate the elimination of the use of individual septic systems at the new connections.

Implementation of the proposed Project may result in a nominal increase in population within the Project area that could generate an increased demand for School Services. The potential significance of this increase in demand for School Services is evaluated in the following text.

The following reference documents were used in preparing this section of the DEIR.

- City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000
- Ed Data Education Data Partnership Website. Accessed 11/8/2018 (<http://www.ed-data.org/district/Riverside/>)
- Palm Springs Unified School District Website. Accessed 11/8/2018 (<https://www.psusd.us/domain/196>)

4.15.4.1 Environmental Setting

As stated previously, the Project area is located within and served by the Palm Springs Unified School District (PSUSD), which serve grade K-8 aged students and grade 9-12 aged students, respectively. As stated above, PSUSD serves the Cities of Palm Springs, Cathedral City, Rancho Mirage, Thousand Palms, and Desert Hot Springs with 12 elementary schools, 5 middle schools, 5 high schools, 1 elementary charter school, and 2 alternative schools. Of these schools, 8 are in the City of Desert Hot Springs, including 4 elementary schools, 2 middle schools, 1 high school, and Edward L. Wenzlaff Education Center (an alternative school). These schools are:

- Bella Vista Elementary School
- Bubbling Wells Elementary School
- Cabot Yerxa Elementary School
- Julius Corsini Elementary School
- Painted Hills Middle School
- Desert Springs Middle School
- Desert Hot Springs High School
- Edward L. Wenzlaff Education Center

The enrollment for the entire PSUSD for the 2017-18 school year was 23,103 students. Table 4.15.4-1, *Current Enrollments of Schools Serving the Project*, summarizes school populations, while Table 4.15.4-2 summarizes capacities within the overall Palm Springs Unified School District for the 2017/2018 school year at each school level.

**Table 4.15.4-1
CURRENT ENROLLMENTS OF SCHOOLS SERVING THE PROJECT**

| School | Address | Enrollment (2017/2018) |
|-------------------------------------|---|-------------------------------|
| Bella Vista Elementary School | 65750 Avenida Jalisco Desert Hot Springs, CA 92240 | 741 |
| Bubbling Wells Elementary School | 67501 Camino Campanero Desert Hot Springs, CA 92240 | 735 |
| Cabot Yerxa Elementary School | 67067 Desert View Ave Desert Hot Springs, CA 92240 | 700 |
| Julius Corsini Elementary School | 68750 Hacienda Ave Desert Hot Springs, CA 92240 | 455 |
| Two Bunch Palms Elementary School | 14250 West Dr Desert Hot Springs, CA 92240 | 799 |
| Painted Hills Middle School | 9250 Sonora Dr Desert Hot Springs, CA 92240 | 801 |
| Desert Springs Middle School | 66755 Two Bunch Palms Trl Desert Hot Springs, CA 92240 | 977 |
| Desert Hot Springs High School | 65850 Pierson Blvd Desert Hot Springs, CA 92240 | 1,800 |
| Edward L. Wenzlaff Education Center | 11625 West Dr Desert Hot Springs, CA 92240 | N/A |

Sources: Information provided in this table was extracted from ed-data.org/district/Riverside/ which provides accurate data for California Schools; the data listed reflects the 2017-2018 school year enrollment numbers.

**Table 4.15.4-2
CURRENT CAPACITIES OF PSUSD AT EACH SCHOOL LEVEL**

| School Level | Capacity (2017/2018) | Enrollment (2017/2018) | Excess / (Shortage) Capacity |
|--------------------|----------------------|------------------------|---------------------------------|
| Elementary Schools | 13,923 | 12,283 | 1,640 |
| Middle Schools | 3,127 | 3,557 | (430) |
| High Schools | 8,604 | 7,365 | 1,239 |

Sources: ed-data.org/district/Riverside/ and The Palm Springs Unified School District School Fee Justification Study, April 5, 2018:
https://www.psusd.us/site/handlers/filedownload.ashx?moduleinstanceid=7297&dataid=5924&FileName=FSCID_PalmSpringsUSD_1718_Final%204518.pdf

As shown in the Tables above, PSUSD has substantial available capacity for Elementary and High School levels, but is currently exceeding capacity for Middle School level. PSUSD utilizes portable classrooms to accommodate over-capacity student enrollment at its schools until enrollment warrants construction of new school facilities.

There are a variety of funding sources for school districts, including a portion of local property taxes and State funds. In addition, State Assembly Bill 2926 (AB 2926), enacted in 1986, authorizes school districts to levy an impact development fee on developers. These fees may be used to construct new facilities. They are updated periodically and currently PSUSD fees are \$0.61 per square foot, or \$610 per 1,000 square feet of Commercial Industrial Development (CID), on future CID for all land use categories, except for the self-storage category where it is justified in levying a School Fee of \$0.076 per square foot, or \$76 per 1,000 square feet of CID. The residential School Fee of \$3.79 per square foot for all new residential development within its boundaries.

There are three regional higher education institutions in the Coachella Valley. They include the College of the Desert, a community college with Associates degree programs and adult education, with multiple campuses, including a Desert Hot Springs campus located at the Edward L. Wenzlaff Education Center at 11625 West Drive, approximately 5 miles northwest of the project site; and a main campus in Palm Desert. Bachelor's and Master's degree programs are offered through University of California, Riverside (Palm Desert campus), and California State University, San Bernardino (Palm Desert campus).

4.15.4.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- *Result in a substantial adverse physical impact associated with the provisions 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 school services.*

The above threshold must be considered in the context of the following State laws/regulations.

California SB 50, the Leroy F. Greene School Facilities Act of 1998: *Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998*, provided for the issuance of state general obligation bonds, in an amount not to exceed \$9.2 billion. Proposition 1A (SB 50) was approved by California voters on November 3, 1998. The passage of Proposition 1A authorized \$9.2 billion in State bonds for K–12 and higher education school facilities construction and modernization. Of this amount, \$2.9 billion is allocated for new construction for grades K–12. The approval of Proposition 1A activated the provisions of Government Code Sections 65995.5, 65995.6, and 65995.7. This program, known as the School Facilities Program (SFP), established a state program to provide state per pupil funding for new construction and modernization of existing school facilities. The SFP requires the state to provide an estimated 50 percent of the funds required for new school projects matched by 50 percent funding from local funds.

Proposition 55, the *Kindergarten-University Public Education Facilities Bond Act of 2004*, and Proposition 47 of 2002, the *Kindergarten-University Public Education Facilities Bond Act*, authorized \$10 billion and \$11.4 billion, respectively, for the upgrade and construction of California school facilities. With the passage of these propositions, approximately \$21 billion was made available for school facilities construction. As such, until these funds are exhausted, only Level I and Level II fees can be imposed on new development. The level of fee that a new residential project is mandated to pay can change depending upon availability of State funds and under this circumstance. The amount of fees that can be charged for a residential project are placed in categories with the State establishing the value for each category level. The amount can vary each year depending on the capacity in a school district and availability of State funds.

California Education Code Section 17620 provides that the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities. School district authority to impose development fees on new construction is derived from Educational Code section 17620, and is subject to the limits defined in Government Code Section 65995. However, infrastructure project such as the proposed WVWRP are exempt from paying school impact fees. The following relevant Goals, Policies, and Programs outlined in the Desert Hot Springs General Plan are:

Schools and Libraries Element: Goal 1

Educational and library facilities in the City of Desert Hot Springs providing quality services and facilities, and convenient access to these important educational and cultural resources.

Schools and Libraries Element: Policy 1

The City shall cooperate and coordinate with the Palm Springs Unified School District to identify sites needed to meet future District growth demands. The City shall encourage that potential school sites are planned within centrally located areas of residential development.

Schools and Libraries Element: Program 1 A

Provide enhanced educational opportunities for the residents of the community, as part of the City's continuing effort to cooperate and coordinate with the Palm Springs Unified School District in planning for new facilities.

Schools and Libraries Element: Program 3 A

Preserve and protect existing and future school and library sites from excessive noise and traffic conditions by encouraging the use of design and development solutions that mitigate these impacts.

Schools and Libraries Element: Policy 5

Support the expansion of educational opportunities for the City's residents at all levels.

Schools and Libraries Element: Program 5 A

Work with community college and university districts to encourage the development of extension courses and/or satellite college facilities within the City.

4.15.4.3 Potential Impacts

- **Would the Project result in a substantial adverse physical impact associated with the provisions 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 school services?**

The proposed Program is an infrastructure project that would expand MSWD's wastewater treatment service area within the City of Desert Hot Springs. The project would facilitate the removal of individual septic systems through the development of new sewer connections and sewer conveyance pipeline that would connect to the new WVWRF. Because the project would extend infrastructure 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. The proposed treatment facility upgrades would not directly induce substantial population growth in the MSWD service area. Approximately 20 new fulltime employees would be required to operate the facilities proposed as part of the WVWRP. As a worst-case assumption, the 20 new employees could result in the demand for 20 new housing units that could generate school-age children. This potential increase in students would be considered nominal and would not require new schools in order to maintain acceptable performance objectives. Because the project would not require the construction of new schools or expansion thereof, potential impacts related to the need for new or physically altered school services are considered to be less than significant. No significant adverse physical impacts are anticipated, and no mitigation is required.

4.15.4.4 Avoidance, Minimization and Mitigation Measures

Payment of school impact fees is not required for infrastructure projects such as MSWD's proposed WVWRP. The impacts from the Program to schools will be less than significant without the need for mitigation based on the discussion above.

4.15.4.5 Cumulative Impacts

The cumulative analysis for impacts to school services involves the projected growth within the school districts of the MSWD service area. The Coachella Valley, which includes the MSWD service area, is expected to experience substantial growth over the next few decades. Desert Hot Springs is anticipated to grow by about 6.1% annually, resulting in development of commercial, industrial, and residential land uses. As cumulative development occurs, the school districts may experience substantial increases in the demand for additional school capacity. Substantial increases in the demand for schools could result in the need for new school

facilities. Depending on the location of the new school facilities, there could be significant impacts from the construction and operation of new facilities. However, at present, PSUSD is levying the maximum school fee possible to support District schools as the area continues to grow. Because the proposed project would result in a nominal increase in school services (based on a future 20 new employees and homes), the project's contribution to cumulative environmental effects associated with the construction of new schools would be less than cumulatively considerable and thus less than cumulatively significant.

4.15.4.6 Unavoidable Significant Adverse Impacts

The foregoing evaluation demonstrates that though the Project will cause a nominal unavoidable change or increase in demand for schools within the PSUSD area, this increase would not cause an unavoidable significant impact to school services. Therefore, Project school services impacts are less than significant.

4.15.5 Library Services

The WWRF is served by the County of Riverside for library services. If the Project is implemented as proposed, it will result in the development of the WWRF and development of a sewer conveyance pipeline alignment that will connect new customers to MSWD's service area, which would facilitate the elimination of the use of individual septic systems at the new connections.

Implementation of the proposed Project may result in a nominal increase in population within the Project area that could generate an increased demand for Library Services. The potential significance of this increase in demand for Library Services is evaluated in the following text.

The following reference documents were used in preparing this section of the DEIR.

- City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000
- Riverside County Library Website. Accessed 11/9/18 (<http://rivlib.info/website/branch-page-829/location/DesertHotSprings>)
- City of Desert Hot Springs, *City of Desert Hot Springs Parks and Recreation Master Plan*, 2013

4.15.5.1 Environmental Setting

The Desert Hot Spring's Library, located at 11691 West Drive Desert Hot Springs, CA 92240, is a branch of the joint library system of the County of Riverside. The Library is located between 2 and 4 miles north of the proposed pipeline alignment, and about 4 miles north of the WWRF site. The library is housed in a county-owned building. The General Plan indicates that the library contains approximately 33,000 volumes of various media. Special resources include books and DVDs for both adults and children, with computer terminals and text-base access to the Internet. Library services include a delivery system, which provides for the exchange of books and other resources between all County libraries on a daily basis. The County strives to maintain an un-adopted standard of 2 volumes and 0.5 square feet of library space per resident.

Part of the funds raised through Development Impact Fees leveed per Riverside County Ordinance 659 and Riverside County Code Chapter 4.60 are used to construct library facilities, including land acquisition.

4.15.5.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- *Result in a substantial adverse physical impact associated with the provisions 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 library services.*

Part of the funds raised through Development Impact Fees leveed per Riverside County Ordinance 659, is used to construct library facilities, including land acquisition. No fees are required for infrastructure projects such as the proposed WVWRP. The following relevant Goals, Policies, and Programs outlined in the Desert Hot Springs General Plan are:

Schools and Libraries Element: Goal 1

Educational and library facilities in the City of Desert Hot Springs providing quality services and facilities, and convenient access to these important educational and cultural resources.

Schools and Libraries Element: Program 3 A

Preserve and protect existing and future school and library sites from excessive noise and traffic conditions by encouraging the use of design and development solutions that mitigate these impacts.

Schools and Libraries Element: Policy 4

Recognizing the importance of the library system for educational and cultural development within the community, the City shall make every effort to assure that quality library facilities and resources are accessible to all residents.

Schools and Libraries Element: Program 4 A

The City shall coordinate efforts to expand and enhance library facilities, including library space, more books, expanded electronic and Internet facilities; increased staffing and operation hours; and outreach and education programs.

4.15.5.3 Potential Impacts

- **Would the Project result in a substantial adverse physical impact associated with the provisions 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 library services?**

In order to meet the need for public facilities and improvements, Riverside County imposes development impact fees (DIFs) in order to support projected future development. The County imposes a Library Construction DIF, however, the DIF is only applicable to residential developments. Residential developments are not proposed within the project site. Therefore, the County does not require this project to participate in the library construction DIF. Infrastructure projects such as the proposed WVWRF are exempt from the payment of such fees. Thus, the proposed project would not generate substantial population growth because it would not develop any new housing. Therefore, impacts would be less than significant.

4.15.5.4 Avoidance, Minimization and Mitigation Measures

Payment of fees that support Library Services is not required for infrastructure projects such as MSWD's proposed WVWRP. The impacts from the Program to library services will be less than significant without the need for mitigation based on the discussion above.

4.15.5.5 Cumulative Impacts

The Project, in conjunction with other projects anticipated within the proposed Project area, will generate demand for Library Services in excess of what the local library system is presently able to accommodate. However, because the proposed project would result in a nominal increase in library services (based on a future 20 new employees and homes), the project's contribution to cumulative environmental effects associated with the expansion of library services would be less than cumulatively considerable and thus less than cumulatively significant.

4.15.5.6 Unavoidable Significant Adverse Impacts

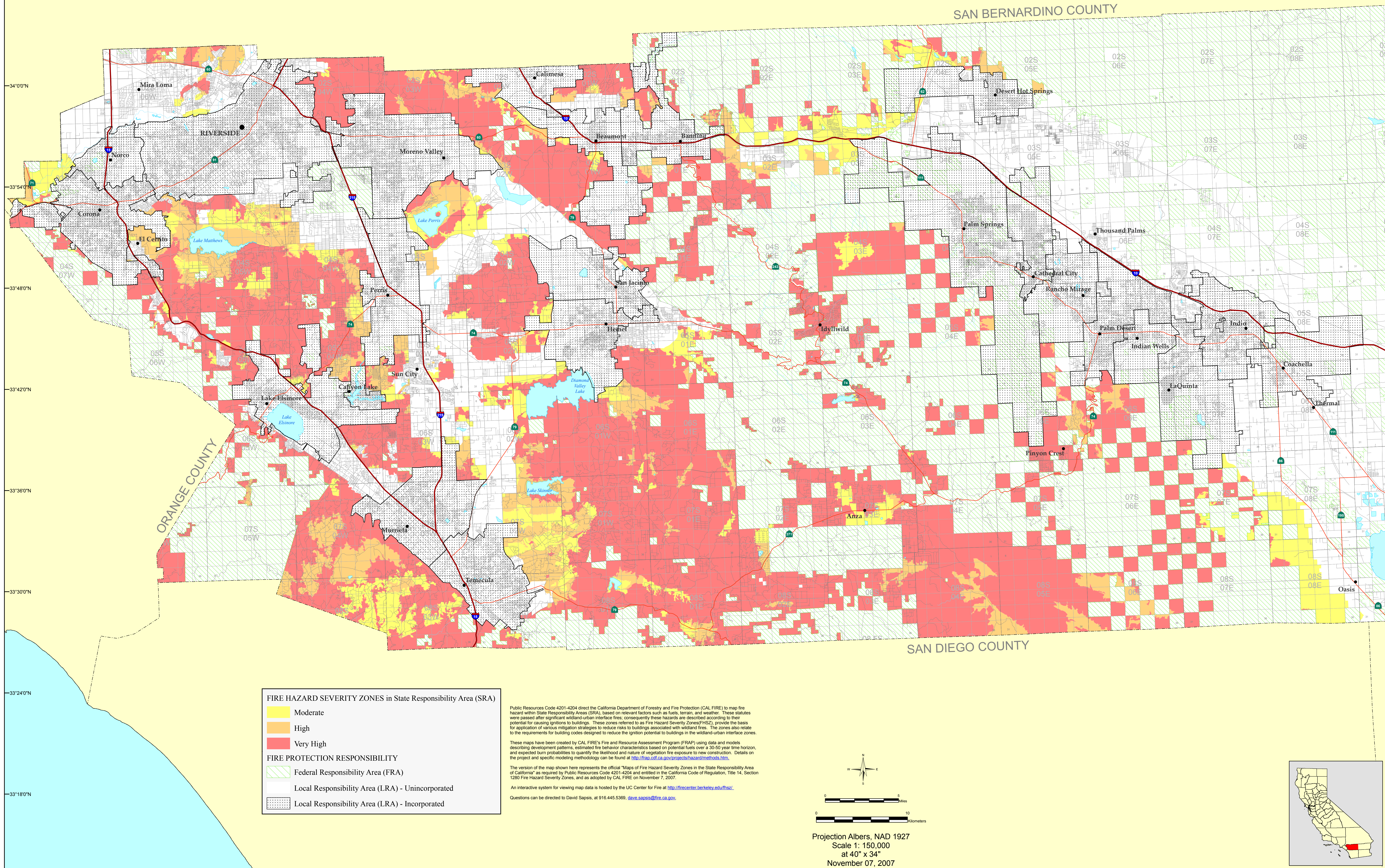
The foregoing evaluation demonstrates that though the Project will cause a nominal unavoidable change or increase in demand for library services in the MSWD area, this increase would not cause an unavoidable significant impact to library services. Therefore, Project library services impacts are less than significant.



FIGURE 4.15-1

FIRE HAZARD SEVERITY ZONES IN SRA

Adopted by CAL FIRE on November 7, 2007



The State of California and the Department of Forestry and Fire Protection make no representations or warranties regarding the accuracy of data or maps. Neither the State nor the Department shall be liable under any circumstances for any direct, special, incidental, or consequential damages with respect to any claim by any user or third party on account of, or arising from, the use of data or maps.

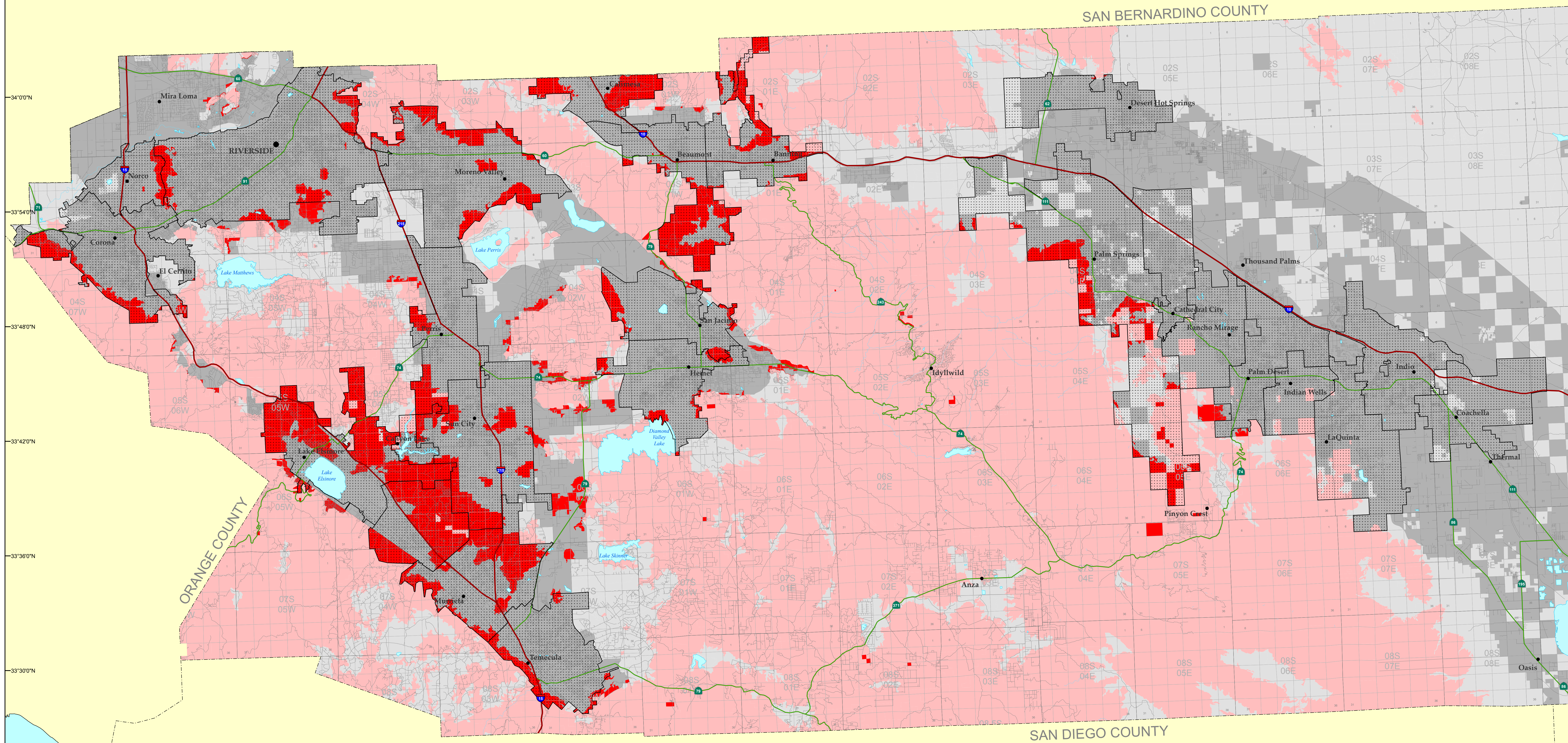
Obtain FRAP maps, data, metadata and publications on the Internet at <http://frap.cdf.ca.gov>. For more information, contact CAL FIRE-FRAP, PO Box 944246, Sacramento, CA 94244-2460, (916) 327-3939.

Arnold Schwarzenegger, Governor,
State of California
Mike Chrisman, Secretary for Resources,
The Resources Agency
Ruben Grijalva, Director,
Department of Forestry and Fire Protection

MAP ID: FHSZS_MAP
DATA SOURCES
CAL FIRE Fire Hazard Severity Zones (FHSZS06_3)
CAL FIRE State Responsibility Areas (SRA05_5)
CAL FIRE Incorporated Cities (Incorp07_3)
PLSS (1:100,000 USGS, Land Grants with CAL FIRE grid)

VERY HIGH FIRE HAZARD SEVERITY ZONES IN LRA As Recommended By CAL FIRE

FIGURE 4.15-2



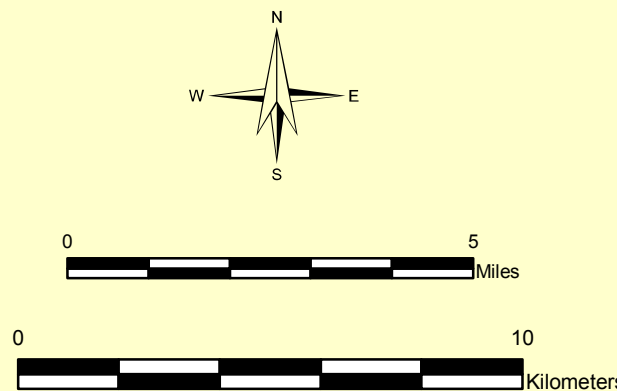
FIRE HAZARD SEVERITY ZONES

| Local Responsibility Area | State or Federal Responsibility Area |
|---------------------------|--------------------------------------|
| VHFHSZ | VHFHSZ |
| Non-VHFHSZ | Non-VHFHSZ |
| Incorporated Cities | |

Government Code 31175.89 directs the California Department of Forestry and Fire Protection (CAL FIRE) to identify areas of very high fire hazard severity zones within Local Responsibility Areas (LRA). Mapping of the areas, referred to as Very High Fire Hazard Severity Zones (VHFHSZ), is based on data and models of potential fuels over a 30-50 year time horizon and their associated expected fire behavior, and expected burn probabilities to quantify the likelihood and nature of vegetation fire exposure (including firebrands) to buildings. Details on the project and specific modeling methodology can be found at <http://frap.fire.ca.gov/projects/hazard/vhfz.html>. Local Responsibility Area VHFHSZ maps were initially developed in the mid-1990s and are now being updated based on improved science, mapping techniques, and data.

In late 2005 to be effective in 2008, the California Building Commission adopted California Building Code Chapter 7A requiring new buildings in VHFHSZs to use ignition resistant construction methods and materials. These new codes include provisions to improve the ignition resistance of buildings, especially from firebrands. The updated very high fire hazard severity zones will be used by building officials for new building permits in LRA. The updated zones will also be used to identify property whose owners must comply with natural hazards disclosure requirements at time of property sale and 100 foot defensible space clearance. It is likely that the fire hazard severity zones will be used for updates to the safety element of general plans.

This specific map is based on a geographic information system dataset that depicts final CAL FIRE recommendations for Very High FHSZs within the local jurisdiction. The process of finalizing these boundaries involved an extensive local review process, the details of which are available at <http://frap.cdf.ca.gov/projects/hazard/vhfz.html>. Local government has 120 days to designate, by ordinance, very high fire hazard severity zones within its jurisdiction after receiving the recommendation. Local government can ask additional VHFHSZs. There is no requirement for local government to report their final action to CAL FIRE when the recommended zones are adopted. Consequently, users are directed to the appropriate local entity (county, city, fire department, or Fire Protection District) to determine the status of the local fire hazard severity zone ordinance.



Projection Albers, NAD 1927
Scale 1: 150,000
at 40° x 34°
December 24, 2009



4.16 RECREATION

4.16.1 Introduction

This Subchapter evaluates the environmental impacts to the issue area of recreation from implementation of the proposed Project, the proposed Mission Springs Water District (MSWD or District) West Valley Water Reclamation Program (WVWRP or Program) Program Draft Environmental Impact Report (DEIR).

The proposed WVWRP includes the development of the West Valley Water Reclamation Facility (WVWRF) and installation of a new sewer pipeline alignment within existing roadways and thoroughways that would facilitate the removal of individual septic systems through new MSWD sewer connections.

This document is a full-scope DEIR for the above-described project and all of the standard issues related to Recreation identified in Appendix G of the CEQA Guidelines.

The following reference documents were used in preparing this section of the DEIR.

- City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000
- City of Desert Hot Springs, *City of Desert Hot Springs Parks and Recreation Master Plan*, 2013
- County of Riverside. *Ordinance No. 659.7 – Establishing Development Impact Fees*
- City of Desert Hot Springs Website, Accessed 11/12/18, <https://www.cityofdhs.org/>

4.16.2 Environmental Setting

The City of Desert Hot Springs has three types of parks serving the City: community, neighborhood, and mini- (pocket) parks. Mini-parks are considered either passive (parks meant for the enjoyment of sitting, picnicking, and hiking) or active (parks with sports fields, exercise equipment and playground areas). In addition to these traditional park facilities, there are additional types of facilities utilized in Desert Hot Springs, including an interpretive park, and golf courses. The City of Desert Hot Springs is home to the following public parks, according to their website and to the City's General Plan:

- **Constitution Park**, located at 11-777 West Drive, is a 0.25-acre park that lies between and has been integrated with the Multi-Service Building/Senior Center, the Carl May Community Center/Council Chambers and the City Library. It is a pocket park with mature trees and turf, a permanent outdoor chess table and benches.
- **Guy J. Tedesco Park**, located at 12800 West Arroyo Drive, is 4.0 acres in size and is considered to be a neighborhood park. The Park contains: 2 Basketball Courts, BMX Park, Waterspray Area, Shaded, ADA children's play areas (ages 2-5 & 5-12), Open Green Space, Walking Trail, Plaza, Bike Racks, BBQ's, Picnic Tables (ADA), Parking, Restrooms, Community Bldg., Community Safety Bldg., Amphitheater, Group Picnic Shelter, Trash Enclosure, Security Lighting, Security Cameras, Storage/Equipment Bldg. Guy J. Tedesco Park (formerly Arroyo Park) is a linear park built along an arroyo which serves as a neighborhood park for the southwestern portion of the city. The BMX facility is a main attraction for youth. The community center hosts various meetings and City activities. There is a water spray area and basketball courts to serve both youth and young adults, and open turf areas for family activities and special events. A small

amphitheater provides a venue for outdoor classes, local entertainment and group activities for community organizations. Group picnic areas are available for birthday parties, family outings and community events. A concrete path meanders through the park for walking and exercise.

- **Hot Springs Park**, located at 1090 Palm Drive, is a 0.44 acre mini-park located at the northwest corner of Palm Drive and 8th Street. It was developed as an interpretative park denoting the hot mineral springs that are found in the City of Desert Hot Springs. There are two fountains, a walking trail, landscaping, and a passive turf area.
- **Mission Springs Park** is located at 14510 Palm Drive. Encompassing 14.9 acres, Mission Springs Soccer Park is located just east of Palm Drive off of Park Lane and is bordered by the MSWD's Wastewater Treatment Plant on the east and a hotel on the west. This park serves as the major soccer sports complex for AYSO and private soccer clubs but also contains community park amenities, including a children's playground, a perimeter walking trail, picnic facilities, a concession building, rest rooms, parking lot, and six perimeter lighted soccer fields that can be configured different ways to accommodate various soccer age groups. Junior All-American Football also uses the park for its practices with a football field overlay on the soccer fields.
- The park has been expanded to include more acreage as follows:
 - **Mission Springs Park Expansion-North** is 5.0 acres in size and is classified as a Community Park .
 - **Mission Springs Park Expansion-South** is 5.0 acres in size and is classified as a Community Park.
- **Rotary Dog Park in Honor of Jack Webb**, located at 12598-13604 Don English Way, is a 10 acre park that is classified as a neighborhood park. Rotary Park (formerly Coyote Park) was named in honor of Jack Webb, a longtime Rotary Club member. The park is located on the northeast side of Desert Hot Springs just north of Julius Corsini Elementary School. Only a three acre portion of the park is currently developed with turf and trees. The park provides access to trails into the Miracle Hill area which will eventually connect to Joshua Tree National Park. The views of the desert floor and Coachella Valley are quite spectacular as are the views of the surrounding snowcapped mountains.
- **Sgt. Hodge Skate Park**, located at 11777 West Drive, is 0.40 acres in size, and is considered to be a mini park. The skate park is constructed of concrete and is heavily used by youth and young adults. It provides a variety of recreational challenges to the skill level of any skater with such obstacles as sloping ramps, rails, platforms and steps.
- **Veteran's Memorial Park**, located at 10101 Palm Drive, is 0.30 acres in size, and is classified as a mini park. The park is dedicated to honoring all veterans of the United States military. The park has passive turf areas and picnic tables for family use and quiet seating areas for observance and reflection. Every year, the Community and Cultural Affairs Commission hold special events at the park for Veteran's Day and Memorial Day. The surrounding views from the park are impressive.
- **Wardman Park and Dog Park**, located at 66150 8th Street, is a 6.2 acre park. Wardman Park's amenities include: Lighted Little League Baseball Fields, Scoreboard, Ball Division Field, 2 Tennis Courts, Basketball Courts, ADA Children's Play Area (ages 2-5 & 5-12), Open Greenspace, Plaza, BBQ's, Bike Racks, Picnic Tables (ADA), Restrooms, Concession Stand, Community Bldg., Storage/Equipment Bldg., Group Picnic Shelter, Trash Enclosure, and Parking. Wardman Park is the home of Desert Hot Springs Little League and Girls Softball. There are both major and minor division fields for Little League, complete with a scoreboard and concession stand.

- **Corsini-Eastside Park** is a 21.02-acre park located behind John Corsini Elementary School on Hacienda Avenue and Don English Way. This park provides picnic tables, mature trees and turf, and an extensive system of nature trails. This park is intended to serve as the City's original General Plan goal to integrate nature trails into the City.
- **Hacienda Park** is a 3.1 acre park that is classified as a neighborhood park.
- **West End Park** is a 10.0 acre park that is classified as a neighborhood park.
- **Skyborne Park** is an 8.8 acre park that is classified as a neighborhood park.
- **Rancho Del Oro Park** is a 4.9 acre park that is classified as a neighborhood park.

City Recreation Centers and Other Facilities

The City of Desert Hot Springs also has a recreation center—the **Desert Hot Springs Recreation Center**—which is located at 11-750 Cholla Drive. The recreation center offers a Community Computer Lab, reading rooms, pool tables, and foosball tables.

The City contains two community centers. The **Carl May Community Center** is located at 11711 West Drive. The Carl May Community Center contains the City Council Chambers, along with community meeting space, a full kitchen and restrooms. The community center is approximately 3,500 square feet in size and plays host to numerous meetings and city activities. The **Henry V. Lozano Community Center**, located at 12-800 West Arroyo Drive, is located within Guy J. Tedesco Park. The facility provides community meeting rooms, restrooms, and a full kitchen. The building also houses a Police Substation.

The City also is home to **Cabot's Pueblo Museum**, which is located on 5.0 acres of land at 66-616 Desert View Avenue. The Museum contains the following amenities: Walking Trail, Historic Adobe Home, Trading Post & Gallery, Picnic Tables (ADA), Restroom, Gift Shop Building, Interpretive Center, Storage/Maintenance, Equipment Bldg., Trash Enclosure, Parking (unpaved), Security Lighting, and Security Cameras. Cabot's Pueblo Museum is a unique Hopi inspired Pueblo hand-made by Cabot Yerxa over 70 years ago. This multilevel building includes 35 rooms, 150 windows and 65 doors, all crafted from found materials. The museum houses Cabot's collection of Native American pottery, early 20th century photographs and artifacts from his Alaskan adventures. The museum grounds, including a picnic area, are beautifully landscaped with native plants and home to many rustic period items – early 1900's tools, machinery and house goods. The museum also houses a Trading Post and Art Gallery and the famed sculpture "Waakiye", a 43 foot tall Indian monument carved from a 750 year old Sequoia Redwood by Peter "Wolf" Toth, as part of the "Trail of Whispering Giants". Guided tours of this historic landmark are conducted daily. The museum is available year-round for single tours, group tours and special events.

Additionally, the City also has a senior center—the **Desert Hot Springs Senior Center**—which is located at 11-777 West Drive, behind the Carl May Community Center and the Library. The Senior Center offers morning bites, lunch, organized games such as pinochle and mah jongg, fitness classes, movie nights, choir practice, assistance for low income seniors (through the Senior Advocates of the Desert), and other organized events and outings.¹

The City also has a community health and wellness center—the **Desert Hot Springs Community Health and Wellness Center**—which is located at 11-750 Cholla Drive, that offers gym facilities and fitness classes open to residents of the City. Because the City is located in the

¹ <https://cdn2.hubspot.net/hubfs/4435988/sc%20Senior%20Center%20News.pdf?t=1541819044337>

desert, the City has a community pool open during the summer at the Desert Hot Springs Health and Wellness Center—the **John H. Furbee Aquatics Center**—which is located at 11750 Cholla Drive. The Desert Hot Springs Community Health and Wellness Center houses the Boys & Girls Club that includes after school programs for youth and teens, a teen center and clinic, offices, gymnasium, nutrition counseling, dental clinic, a fitness center, an aquatic center, playground equipment, restrooms, locker rooms, and security cameras. The facility offers supervised after school programs to the youth to enable them to reach their full potential as productive, caring, responsible citizens. The aquatic center offers a competition venue for Desert Hot Springs High School and other aquatic opportunities for health & wellness. The clinic provides comprehensive healthcare services to the greater Desert Hot Springs community.

Additional Recreational Facilities

In addition to park and recreational facilities, reciprocal privileges have been coordinated with the Palm Springs Unified School District at the high school site for recreational use by the City Parks and Recreation Department. The Desert Hot Springs Boys and Girls Club also has a Facilities Use Agreement with the District, which allows the Boys and Girls Club to use the District's facilities for various youth programs.

Hiking and Equestrian Trails

Hiking and equestrian trails in Desert Hot Springs are primarily located along the wash areas and the foothills, providing access to trails in Joshua Tree National Park area and the Morongo Canyon Preserve. A trailhead exists at the mouth of Long Canyon and provides parking for cars and horse trailers, as well as providing handicapped access. An information kiosk is located one-half mile northeast of Hacienda Drive and just east of the existing city limits.

The **Morongo Canyon Preserve and Area of Critical Environmental Concern (ACEC)** is managed by the Bureau of Land Management (BLM), and is located in the Little San Bernardino Mountains north of the Coachella Valley. Limited portions of the ACEC are located within the Desert Hot Springs northern sphere-of-influence. The ACEC was expanded in 1998 from 3,705 acres to 29,000 acres, and includes both public and private lands. Big Morongo Canyon ACEC has been designated to protect a desert oasis where perennial surface water supports an extensive willow and cottonwood forest. A considerable trail system is incorporated into this Preserve; the Desert Hot Springs area is most locally served by the Big Morongo Trail, located at the mouth of the canyon.

Regional Facilities

The City is located in a region containing several recreational facilities serving not only the local area but much of Southern California as well. Regional facilities include Joshua Tree National Park, the San Bernardino National Forest, Palm Springs Aerial Tramway, Mt. San Jacinto Wilderness State Park, Big Morongo Canyon Preserve/Covington Park, Willow Hole/Edom Hill Reserve, and Coachella Valley Reserve.

Summary

Overall, the City has approximately 73.29 acres of existing parks. The Quimby Act permits local jurisdictions to require dedication of land, payment of fees, or both, to provide up to five acres of parkland per 1,000 residents in new developments; however, the City of Desert Hot Springs Parks and Recreation Master Plan (2013) states that the goal of the City is to maintain a ratio of 3 acres of parks per 1,000 persons for neighborhood parks, 10 acres of recreation and park space for each 1,000 persons for general regional recreation, and one mile of recreational trails for each 1,000 persons within the City. The City is deficient by approximately 12.96 acres based

on the Parks and Recreation Master Plan goal, or by approximately 70.21 acres according to the City's General Plan Goal to meet or exceed developed parkland acreage standards as stated in the Quimby Act. However, based on the availability of hiking trails and open space within the City or just outside the City in areas including but not limited to the following:

- Joshua Tree National Park, which contains 794,000± acres managed by the National Park Service, is located immediately north of the City.
- Big Morongo Canyon ACEC, which contains 29,000± acres managed by the United States Bureau of Land Management (BLM), is located one mile north of the City.
- Riverside County Ecological Park and Devil's Garden, which is located within the City limits, west of Highway 62, is about 320 acres. The County's holding is a state owned site managed for the protection of rare plants and animals.

According to the City of Desert Hot Springs General Plan's Open Space and Conservation Element, the City contains approximately 5,316 acres of land designated as Open Space/Mountain Reserve, and 175.36 acres of Undeveloped Park Lands. The open space and recreation element identified thousands of acres of open space lands within and just outside of the City limits (see Table IV-4, page IV-44 of the General Plan). Based on this data, though the City has a deficit of parks, the surrounding open space and recreation areas generally make up for this deficit.

4.16.3 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

1. Would 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.
2. Includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

State

Quimby Act

This act is state legislation that authorizes cities and counties to pass ordinances requiring developers to set aside land, donate conservation easements, or pay fees for park improvements. (California Government Code 66477.) The Quimby Act permits local jurisdictions to require dedication of land, payment of fees, or both, to provide up to five acres of parkland per 1,000 residents in new developments. The Quimby Act does not provide dedication or fees for the City's trail system.

County

Section 10.35 of Riverside County Ordinance No. 460.148

Riverside County Ordinance No. 460-151, Section 10.35, sets forth county requirements for dedication of land and/or payment of fees for park and recreational facilities as a condition of approval of a tentative map or parcel map. Dedication and/or payment of fees devoted to neighborhood and community park and recreational facilities is required at a minimum ratio of three acres of land per 1,000 persons. Where the existing neighborhood and community park area exceeds three acres per 1,000 persons, the required park area ratio can range up to five

acres of land per 1,000 persons where so specified by a Community Parks and Recreation Plan as approved by the Board of Supervisors. The proposed WWWRP is exempt from this Ordinance because it

Riverside County Ordinance No. 659.7

Riverside County Ordinance No. 659.7 establishes a developer impact fee to mitigate the cost of public facilities needed to serve new development. Portions of the fees set forth in Ordinance No. 659.7 are designated for regional parks and for regional multipurpose trails. The regional park fee component established in the project area varies according to the development type. The proposed WWWRP is exempt from payment of this fee because it is an infrastructure project.

City of Desert Hot Springs

City of Desert Hot Springs General Plan

The following Goals, Programs, and Policies from the City of Desert Hot Springs General Plan apply to parks and recreation facilities:

Parks and Recreation Element: Goal 1

A balanced quality system of parks, trails and recreational areas that support a broad range of activities, as well as cultural, and passive open space enjoyment opportunities for current and future residents.

Parks and Recreation Element: Policy 1

Update and maintain the City's Master Parks Plan to assure adequate parklands, trails and open space lands meeting or exceeding developed parkland acreage standards as stated in the Quimby Act.

Parks and Recreation Element: Policy 3

The City shall institute a Parks Improvement Program to provide improvements needed for the park system to meet current and projected requirements.

Parks and Recreation Element: Program 3 A

The City shall develop and implement a Parks Improvement Program based upon the updated Master Parks Plan, which provides expanded and enhanced parks, trails and other facilities including adequate security lighting, grass areas, structured game areas and other improvements for optimized and safe recreating.

Parks and Recreation Element: Program 3 B

Install proper landscaping and irrigation systems, and institute proper turf management, in accordance with City water conservation strategies, on all playing or open areas, per the updated Master Parks Plan to enhance use and to make parks cooler and more comfortable.

City of Desert Hot Springs Parks and Recreation Master Plan

The Parks and Recreation Master Plan (2013) indicates the following needs for park and recreation facilities within the City based on community input and involvement:

The community demand and needs indicate that the following **new facilities** that would best meet the desired demand for the future in Desert Hot Springs are:

1. Community Center/Gym Complex to serve all ages for indoor sports, recreation classes, meeting rooms and community events.
2. Two Community Parks with sports fields, stage/festival areas, a Dog Park, group picnic areas, trails, tot lots, restrooms and open space.
3. Aquatics Complex for lessons, recreational and competitive swim activities, water exercise and water safety programs.
4. New Neighborhood Parks with fields, tot lots, spray pools, family picnic areas, and informal open space (Skyborne, Hacienda, Park Lane and future development sites)

The following are the priority needs for **existing facilities**:

1. Refurbishment of the existing or construction of a new Boys & Girls Club with a primary emphasis on serving teens.
2. Refurbishment and expansion of the Senior Center to include outdoor recreation amenities.
3. Additional lighted fields for little league/girls softball at Wardman Park.
4. Upgrade and expansion of the Library into the Carl May Center when the new City Hall complex is completed.
5. Relocation of the Skate Park facility at Carl May Center and the BMX facility at Guy J. Tedesco Park into a joint facility adjacent to the proposed new Boys & Girls Club within the Health & Wellness Center development, or at Wardman Park if it is expanded and refurbished.
6. Installation of trailheads, trail markers and view point spots at Rotary Park, but no further active development of the park so as to keep it a passive park facility.

The following are pertinent park development standards as outlined in the Parks and Recreation Master Plan (2013):

- Sustainability:
 1. Green Building Technology
 2. Water Conservation
 3. Reduce Energy Consumption
 4. Lower Gas Emissions
- Supply neighborhood and community parks at a minimum of 3 acres per 1,000 persons throughout the city.
- Strive to provide 10 acres of recreation and park space for each 1,000 persons for general regional recreation opportunity as a desirable goal. Recreational and park space includes neighborhood parks, community parks, school open space, county parks and state recreation areas.
- Establish one mile of recreational trails for each 1,000 persons as a desirable goal for developing trail systems.
- Whenever possible pursue parks as a component of proposed groundwater recharge areas.

4.16.4 Potential Impacts

1. Would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The proposed Program is an infrastructure project that would expand MSWD's wastewater treatment service area within the City of Desert Hot Springs. The project would facilitate the removal of individual septic systems through the development of new sewer connections and sewer conveyance pipeline that would connect to the new WVWRF. Because the project would extend infrastructure and would not develop any commercial, residential, or industrial facilities, the proposed project is not required to pay any fees to offset impacts to park and recreation facilities. Furthermore, the project would not substantially induce population growth, such as a residential housing project that would result in impacts to recreational facilities due to increased use. Approximately 20 new employees would be needed associated with the program to operate the proposed WVWRF. As a worst-case assumption, the 20 new employees could result in the demand for 20 new housing units. An increased demand of 20 new housing units are well within the housing projections anticipated to accommodate the population growth expected to occur within the MSWD service area. This increase would be minimal relative to the forecasted growth anticipated to occur within the City and the overall Coachella Valley in the next decades, and therefore, would not increase the use of existing regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

The proposed sewer conveyance line would not impact any parks because the proposed alignment would be located within existing roadways and throughways. No parks or recreation facilities would be negatively impacted by developing the pipeline alignment, and the provision of the proposed Program may benefit parks and recreation facilities in the future if the WVWRF expands to include tertiary treatment, which would potentially make recycled water available for use at City Parks. Therefore, the proposed Program is not anticipated to cause any significant adverse effects to parks or recreational facilities in the City.

2. Includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed Program does not require the construction or expansion of recreational facilities. The proposed WVWRP includes the development of the WVWRF, which is located within a mostly vacant site that contains an existing MSWD well on the northwest corner of the site that will remain in place once the WVWRF is developed. Additionally, the program would facilitate the removal of individual septic systems through the development of new sewer connections and sewer conveyance pipeline that would connect to the new WVWRF. These pipeline connections would be located within existing roadways and throughways that would not interfere with any recreational facilities. Therefore, the improvements proposed by the WVWRP would not impact existing parks or recreational facilities. Because the proposed improvements would not physically impact existing parks or recreational facilities, no new or expanded park or recreational facility would be required with the implementation of the proposed facilities. Therefore, no physical effect on the environment would occur related to new or expanded park or recreational facilities because the proposed improvements would not require new or expanded park or recreational facilities.

4.16.5 Avoidance, Minimization and Mitigation Measures

Payment of Quimby Act and other park and recreation fees to the City is not required for infrastructure projects such as MSWD's proposed WVWRP. The impacts from the Program to parks and recreation facilities will be less than significant without the need for mitigation based on the discussion above.

4.16.6 Cumulative Impacts

The cumulative analysis for impacts to recreation facilities services involves the projected growth within the school districts of the MSWD service area. The Coachella Valley, which includes the MSWD service area, is expected to experience substantial growth over the next few decades. Desert Hot Springs is anticipated to grow by about 6.1% annually, resulting in development of commercial, industrial, and residential land uses. As cumulative development occurs, the City may experience substantial increases in the demand for additional parks to maintain a ratio of 3 acres of parks per 1,000 persons, 10 acres of recreation and park space for each 1,000 persons for general regional recreation, and one mile of recreational trails for each 1,000 persons within the City. Depending on the location of the new park and recreation facilities, there could be significant impacts from the construction and operation of new facilities. Because the proposed project would result in a nominal increase in demand for park and recreation facilities, and does not propose to construct or expand any recreation facilities through implementation of the program, the project's contribution to cumulative environmental effects associated with the construction of any new facilities would be less than cumulatively considerable and thus less than cumulatively significant. The cumulative impacts associated with development of the Project would be a less than significant impact to Recreation resources.

4.16.7 Unavoidable Significant Adverse Impacts

The foregoing evaluation demonstrates that though the Project will cause a nominal unavoidable change or increase in demand for parks and recreation facilities within the City of Desert Hot Springs, this increase would not cause an unavoidable significant impact to existing facilities. Based on these findings, the proposed Project would not cause significant unavoidable adverse impacts to the area recreation resources.

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4.17 TRANSPORTATION / TRAFFIC

4.17.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue areas of transportation/traffic resources from implementation of the proposed West Valley Water Reclamation Program (WVWRP).

This document is a full-scope Draft Environmental Impact Report (DEIR) for the above-described project and all of the standard issues related to Transportation / Traffic identified in Appendix G of the CEQA Guidelines.

These issues pertaining to transportation/traffic will be discussed below as set in the following framework:

- Environmental Setting: Transportation/Traffic
- Thresholds of Significance
- Potential Impacts
- Project-Specific Mitigation Measures
- Cumulative Impact
- Unavoidable Adverse Impacts

The following comments from the public regarding transportation/traffic were received during the NOP comment period or at the Scoping Meeting:

Comment Letter #4 from County of Riverside Transportation and Land Management Agency (dated 3/14/19) states:

- The Comment Letter requests that if the project encroaches upon or utilized County right-of-way, the County Transportation Department should obtain an encroachment permit, and may be required to prepare a traffic control plan

Response: The impact of the proposed Project on transportation facilities is assessed in the Chapter 4.17 of this DEIR. The project includes mitigation to ensure that the project will prepare a construction traffic management plan. The project will obtain encroachment permits where applicable.

The following reference documents were used in preparing this section of the DEIR.

- City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000
- City of Desert Hot Springs, *City of Desert Hot Springs Parks and Recreation Master Plan*, 2013
- County of Riverside, *County of Riverside General Plan*, July 11, 2017
- County of Riverside, *Western Coachella Valley Area Plan*, July 11, 2017

4.17.2 Environmental Setting

Consistent with County of Riverside traffic study guidelines, any intersection of “Collector” or higher classification street, with “Collector” or higher classification streets, at which the proposed

Project will add 50 or more peak hour trips would require a specific traffic study in order to assess whether the Project would have a significant impact. Given the limited additional traffic that would result from implementation of the proposed WVWRP, no traffic study is required for this project.

The “50 peak hour trip” criteria generally represents a minimum number of trips at which a typical intersection would have the potential to be substantively impacted by a given development proposal. Although each intersection may have unique operating characteristics, this traffic engineering rule of thumb is a widely utilized tool for estimating a potential significant impact (i.e., study area) to an area circulation system.

The proposed WVWRP is located in the City of Desert Hot Springs and Unincorporated Area within the County of Riverside.

The West Valley Water Reclamation Facility (WVWRF) site is located within the City of Desert Hot Springs, as is a portion of the proposed conveyance pipeline alignment. The remaining portion of the conveyance pipeline, as well as the GQPP Area M2 are located in the County of Riverside.

4.17.2.1 Desert Hot Springs

The City of Desert Hot Springs General Plan Circulation Element has been utilized for the following transportation and traffic system analysis.

Level of Service (LOS)

According to the City of Desert Hot Springs General Plan, the “Level-of-Service” is typically characterized as the available and utilized capacity of a given roadway. Level-of-Service (LOS) is a qualitative measure describing the efficiency of the flow of traffic. LOS includes a range of alphabetical connotations “A” through “F”, used to characterize roadway operating conditions. LOS A represents the best/free flow conditions and LOS F indicates the worst/system failure. Levels of Service are represented as volume to capacity ratios, or vehicle demand divided by roadway capacity. Therefore, as the ratio approaches 1.12+, the roadway approaches LOS F. Added travel and turning lanes increase capacity, as does the inclusion of raised medians and restricted access on a roadway. Raised medians increase roadway capacity by reducing the number of vehicle conflict points and improving traffic flows. Restricted access avoids loss of capacity caused by interruptions and disruptions to traffic flow resulting from vehicles coming onto or leaving the roadway. The table below defines the various LOS classifications.

**Table 4.17-1
LEVEL OF SERVICE DESCRIPTION**

| Level of Service | Quality of Traffic Flow | Volume/Capacity Ratio |
|-------------------------|--|------------------------------|
| A | Low volumes, high speed; speed not restricted by other vehicles. | 0.00 - 0.66 |
| B | Operating speeds beginning to be affected by other traffic. Some drivers begin to feel restricted within platoons of vehicles. | 0.67 - 0.77 |
| C | Operating speeds and maneuverability closely controlled by other traffic; recommended ideal design standard. “Design Capacity”. Occasionally drivers may have to wait through more than one red signal. Most drivers feel somewhat restricted, but not objectionably so. | 0.78 - 0.88 |

| Level of Service | Quality of Traffic Flow | Volume/Capacity Ratio |
|------------------|--|-----------------------|
| D | Tolerable operating speeds; often used as design standard in urban areas. Increasing restriction at intersections, but no excessive back ups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers. | 0.89 - 1.00 |
| E | The maximum traffic volume a roadway can accommodate during peak traffic periods. "Maximum Capacity". All drivers wait through more than one red signal. | 1.01 - 1.11 |
| F | System failure; long queues of traffic; unstable flows; stoppages of long duration; traffic volume and speed can drop to zero; traffic volume will actually be less than the volume which occurs at Level of Service E. | 1.12+ |

Source: "Highway Capacity Manual," Special Report 209, Transportation Research Board, 1985. ; City of Desert Hot Springs General Plan

Capacity is generally defined as the number of vehicles that may pass over a section of roadway in a given time period under prevailing conditions. Capacities of roadways are most restricted by intersection design and operation, which is discussed further below. Typically, the p.m. peak hour is the heaviest traffic flow of the day. The various capacity values assigned for differing roadway sizes and levels of service are described in Table III-4. It should be kept in mind that the roadway capacity estimates in Table III-5 below are "rule-of-thumb" estimates, which are affected by site specific factors such as the number and configuration of intersections, roadway grades, sight distance, the level of truck and bus traffic, and the degree of access control.

**Table 4.17-2
LEVEL OF SERVICE CAPACITY VALUES**

| Facility Type | Number of Lanes | LOS A ¹ | LOS B ¹ | LOS C ² | LOS D ¹ | LOS E ¹ |
|------------------------|-----------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Arterial | 4 | 10,000 | 17,000 | 24,000 | 31,000 | 38,000 |
| Major | 4 | 10,000 | 17,000 | 24,000 | 31,000 | 38,000 |
| Secondary | 4 | 10,000 | 15,000 | 20,000 | 25,000 | 30,000 |
| Collector ³ | 2 | 6,000 | 9,000 | 12,000 | 15,000 | 18,000 |

¹Source: Estimates developed by Endo Engineering based upon LOS C and LOS E values provided by the Riverside County Road Department.

²Sources: Riverside County Road Department, "Information Pamphlet," 1987.

³Capacities for two-lane arterials, majors and secondaries will be similar.

City of Desert Hot Springs Acceptable LOS

Traffic engineers and transportation planners have in recent years attempted to bridge the gap between providing ideal roadway operating conditions and the costs of infrastructure to assure those conditions. While LOS C has long been considered the desirable and optimal level of traffic volume on any given roadway, it represents a standard that is progressively more difficult and less cost-effective to achieve in urban areas. For peak operating periods, LOS D and/or a maximum volume to capacity ratio of 1.00 is now considered the generally acceptable service level. Where a LOS of E or worse exists along certain roadway segments and intersections, every measure to improve operating conditions shall be pursued.

Current Conditions

According to the City of Desert Hot Springs General Plan, the City is somewhat isolated from other urban development patterns. While intra-community transportation is provided by arterial and collector-sized roadways, Desert Hot Springs is connected to the rest of the Valley and the region by state and interstate highways, including U.S. Interstate-10 and State Route 62. Regional Arterials, including Palm Drive/Gene Autry Trail, Indian Avenue, Dillon Road, Date Palm Drive and Mountain View Road further connect City traffic to other Coachella Valley communities.

Regional Roadways

There are two regional roadways that serve the City: State Highway 62 and Interstate-1 (I-10). Highway 62 extends from the I-10 freeway northward into San Bernardino County where it connects with the communities of Morongo Valley, Yucca Valley, and Twentynine Palms, in addition to Joshua Tree National Park. The I-10 connects Los Angeles (at the City of Santa Monica) with Arizona and other cities and states to the east. The I-10 is the major intra-Coachella-Valley connector.

I-10

The I-10 is located adjacent to the proposed WWWRP site. The I-10 in the vicinity of the City of Desert Hot Springs, is an eight-lane divided freeway accessed from intersections spaced a minimum of one mile apart. The I-10 is essential for travel within the Coachella Valley as it provides access in and out of the Valley, as well as access to many individual Cities and communities within the Valley. Direct access to the City is currently provided on the I-10 at the Palm Drive, Indian Avenue, and Highway 62 exits.

State Highway 62

Highway 62 is located adjacent to and in the western of the City of Desert Hot Springs. Highway 62 provides regional access to Joshua Tree National Park. The Highway 62 access in the City is currently controlled by stop signs and some signalized intersections. The roadway is currently a 4-lane highway divided by natural space and a naturalized median.

Local Major Roadways

In addition to the two existing regional facilities serving the community, the City has partially developed and maintains an arterial roadway network which serves both local and inter-city traffic. Built essentially along a north-south grid, the City road network has direct interconnections with major arterials and highways providing linkage with adjacent County and incorporated jurisdictions. The location of trip attractors along these roads or the convenience they provide in traversing through the City varies with each road.

The table below is partially extracted from the General Plan, and depicts the Roadways that would be most likely to be impacted by traffic generated by the proposed WWWRP.

**Table 4.17-3
WVWRP ADJACENT ROADWAY ANALYSIS**

| Roadway Link | 1994 ADT¹ | 1994 LOS | Buildout General Plan Designation | Buildout ADT | Buildout LOS |
|--|-----------------------------|-----------------|--|---------------------|---------------------|
| Interstate 10 West of Palm Dr. | - | - | Freeway | 156,600 | D |
| Indian Canyon Dr. South of Pierson Blvd. | 8,300 | B | Major Arterial | 53,900 ² | - |
| Little Morongo Road South of Pierson Blvd. | 1,900 | A | Major Collector | 32,600 ² | - |
| Dillon Road³ East of Indian Canyon Dr. & West of Mountain View Rd. | - | - | Minor Arterial | 30,625 | - |

¹ ADT = Average Daily Traffic

² Calculated based on Little Morongo Road South of Dillon Road

³ Dillon Road estimates are based on the General Plan Buildout Traffic Assignment Exhibit III-3

Note that Dillon Road—the roadway that is anticipated to handle the most project-related traffic—is not included in the City’s General Plan Roadway Assessment, but is included in the General Plan Buildout Traffic Assignment Exhibit, which includes the General Plan Buildout ADT for the City’s Sphere of Influence (which is part of the City itself at present).

Roadway Issues within the City

Weather Access

Mission Creek, Little and Big Morongo Washes and other channels and washes draining local mountains require the construction of all-weather crossings to assure accessibility during major flooding. Many of the roadways surrounding the proposed project footprint do not contain all-weather crossings, mainly due to the fact that the traffic along these roadways has not reached capacities at which all-weather crossings would be cost-effective for the City to install. Dillon Road at Mission Creek often floods during strong storm events, though these events do not render the roadway unusable for long periods. As traffic volumes increase at these locations and elsewhere in the City, it will become necessary to construct all-weather bridges at these crossings, but the City has maintained a small population that is still well below build out projections.

Pedestrian Access

Pedestrian and other non-motor circulation is encouraged in the City wherever possible. The provision of sidewalks, bike lanes and off-street trails are especially important along major roadways in the community. While sidewalks have been constructed in many parts of the City, their design and construction has been inconsistent, disjointed and unconnected. In future development, pedestrian safety and accommodation should be given emphasis equal to that currently given to automobile access.

City of Desert Hot Springs General Plan Policies

The City of Desert Hot Springs General Plan offers the following Circulation Goals, Policies and Programs regarding traffic and transportation:

Circulation Element Goals, Policies, and Programs: Goal 1

A circulation network that efficiently, safely and economically moves people, vehicles, and goods using transportation facilities that meet the current demands and projected needs of the City, while maintaining and protecting its residential and spa resort character.

Circulation Element Goals, Policies, and Programs: Policy 1

Establish and maintain a master plan of roads, which sets forth detailed improvement plans and priority schedules for implementation, to assure minimal levels of mid-block roadway and intersection operations at LOS C and LOS D, respectively.

Circulation Element Goals, Policies, and Programs: Policy 2

Coordinate and cooperate with CalTrans, CVAG and Riverside County to assure preservation of capacity and maximized efficiency along Palm Drive, Highway 62 and other major roadways.

Circulation Element Goals, Policies, and Programs: Policy 8

Coordinate with the Riverside County Flood Control District and its consultants to assure the provision of all-weather crossings along critical roadways.

Circulation Element Goals, Policies, and Programs: Policy 12

City truck routes shall be designated and limited to Palm Drive, Two Bunch Palms Trail, Indian Avenue, Little Morongo Road, Pierson Boulevard and Highway 62.

4.17.2.2 County of Riverside

The County of Riverside General Plan Circulation Element has been utilized for the following transportation and traffic system analysis.

Level of Service (LOS)

Riverside County General Plan Policy C 2.1 states that the County will maintain the following County-wide target level of service (LOS): LOS C on all County-maintained roads and conventional State Highways. As an exception, LOS D may be allowed in Community Development areas at intersections of any combination of Secondary Highways, Major Highways, Arterial Highways, Urban Arterial Highways, Expressways or conventional State Highways. LOS E may be allowed in designated Community Centers to the extent that it would support transit-oriented development and pedestrian communities. As such, LOS D has been considered acceptable at any intersection within the County of Riverside because all of the study area intersections are classified as Secondary Highways or a higher classification. The Circulation System in the Riverside County Western Coachella Valley Area Plan is shown on Figure 4.17-1.

Trails and Bikeway System

The County of Riverside contains bicycle, pedestrian, and multi-purpose trails that traverse urban, rural, and natural areas. These trails accommodate hikers, bicyclists, equestrian users, and others as an integral part of Riverside County's circulation system. The rural nature of much of the unincorporated Valley area along with its tremendous scenic qualities make trails a particularly attractive recreational amenity. The Western Coachella Valley Area Plan trail system is shown in Figure 4.17-2.

Riverside County General Plan Policies

Riverside County General Plan Policy: C 2.1

The following minimum target levels of service have been designated for the review of development proposals in the unincorporated areas of Riverside County with respect to transportation impacts on roadways designated in the Riverside County Circulation Plan (Figure C-1) which are currently County maintained, or are intended to be accepted into the County maintained roadway system:

LOS C shall apply to all development proposals in any area of the Riverside County not located within the boundaries of an Area Plan, as well those areas located within the following Area Plans: REMAP, Eastern Coachella Valley, Desert Center, Palo Verde Valley, and those non- Community Development areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans.

LOS D shall apply to all development proposals located within any of the following Area Plans: Eastvale, Jurupa, Highgrove, Reche Canyon/Badlands, Lakeview/Nuevo, Sun City/Menifee Valley, Harvest Valley/Winchester, Southwest Area, The Pass, San Jacinto Valley, Western Coachella Valley and those Community Development Areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans.

LOS E may be allowed by the Board of Supervisors within designated areas where transitoriented development and walkable communities are proposed. Notwithstanding the forgoing minimum LOS targets, the Board of Supervisors may, on occasion by virtue of their discretionary powers, approve a project that fails to meet these LOS targets in order to balance congestion management considerations in relation to benefits, environmental impacts and costs, provided an Environmental Impact Report, or equivalent, has been completed to fully evaluate the impacts of such approval. Any such approval must incorporate all feasible mitigation measures, make specific findings to support the decision, and adopt a statement of overriding considerations.

Riverside County General Plan Policy: C 2.4

The direct project related traffic impacts of new development proposals shall be mitigated via conditions of approval requiring the construction of any improvements identified as necessary to meet level of service targets.

Riverside County General Plan Policy: C 2.5

The cumulative and indirect traffic impacts of development may be mitigated through the payment of various impact mitigation fees such as County of Riverside Development Impact Fees, Road and Bridge Benefit District Fees, and Transportation Uniform Mitigation Fees to the extent that these programs provide funding for the improvement of facilities impacted by development.

Western Coachella Valley Area Plan Policy: WCVAP 17.2

Maintain Riverside County's roadway Level of Service standards as described in the General Plan Circulation Element.

4.17.2.3 Caltrans

Level of Service (LOS)

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State Highway System (SHS) facilities; however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. Consistent with the SHS minimum LOS of LOS D, LOS D will be used as the target LOS for both arterial-to-freeway ramps and freeway mainline segments and ramp junctions.

4.17.2.4 Deficiency Criteria

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies.

Intersections

To determine whether the addition of project traffic at a study intersection would result in a deficiency, the following will be utilized:

- A deficiency occurs at a study area intersection if the pre-Project condition is at or better than LOS D (i.e., acceptable LOS), and the addition of project trips causes the peak hour LOS of the study area intersection to operate at unacceptable LOS (i.e., LOS E or F). Per the County of Riverside traffic study guidelines (which are also applied to intersections in the City of Desert Hot Springs), for intersections currently operating at unacceptable LOS (LOS E or F), a deficiency would occur if the Project contributes 50 or more peak hour trips to pre-project traffic conditions.

Caltrans Facilities

To determine whether the addition of project traffic to the SHS freeway segments would result in a deficiency, the following will be utilized:

- The traffic study finds that the LOS of a segment will degrade from D or better to E or F.
- The traffic study finds that the project will exacerbate an already deficient condition. A segment that is operating at or near capacity is deemed to be deficient.

4.17.3 Thresholds of Significance

The City of Desert Hot Springs utilizes Appendix G of the CEQA Guidelines to determine whether a project will impact transportation/traffic. Appendix G of the CEQA Guidelines indicates that impacts related to transportation/traffic may be considered potentially significant if the proposed Project would:

1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?
2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
5. Result in inadequate emergency access?
6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

As described above, the County, City of Desert Hot Springs and Caltrans have established LOS thresholds that will be applied to this project.

4.17.4 Potential Impacts

This section assesses the transportation impacts that could result from the implementation of WVWRP. Because of the scope of the proposed project, this impact assessment was conducted at a programmatic level.

- 1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

The proposed Program consists of the following which is described in detail in Chapter 3, Project Description:

The WVWRP includes the construction of the WVVRF, which would be installed and begin operation of Phase 1 with design flow of 1.5 MGD; the WVVRF would be constructed in phases with ultimate “build-out” capacity of up to 20 MGD. The WVVRF would be planned, designed, and implemented to permit MSWD to allow future expansion with minimal demolition and removal of any Phase 1 facilities. Initially, the level of treatment will be secondary with denitrification discharging to onsite infiltration basins. Provisions will be made to accommodate upgrades to advanced secondary and tertiary treatment as future steps toward producing recycle water depending on growth, demand, and available funding.

The WVWRP includes the construction of a sewer conveyance pipeline that will connect the GQPP Area M2, which would allow individuals in Area M2 who currently utilize a septic system to hire a contractor to dig up the lids to the septic tank and pump out the tank. This new conveyance system will utilize the Dos Palmas Lift Station (DPLS) to re-direct flows to the new WVVRF.

The proposed WVWRP would generate traffic in the following manner:

1. It is anticipated that the maximum number of construction personnel on the WVVRF project site on any given day will be 100 persons. A maximum number of truck deliveries, probably during pouring of concrete for facilities, are forecasted at 25 per day. Construction of the WVVRF is, therefore, anticipated to generate 125 round-trips per day for 18 months.
2. It is anticipated that the construction of the sewage pipeline—installation of approximately 46,110 lineal feet of pipeline—would require two teams of 11 members each (22 employees total) and each team would require 4 types of heavy construction equipment (Excavator, Backhoe, Paver, and Roller) and one water truck that would remain in proximity of that

teams' assigned pipeline alignment footprint for the duration of the pipeline construction. Additionally, each team would require 10 dump/delivery trucks traveling 80 miles round trip per day. It is assumed that the Area M2 pipeline installation would occur over a period of about 90 working days, while the remaining force main/sewer and trunk sewer alignment would require about 75 days. Therefore, overall the proposed pipeline alignment would result in approximately 20 80-mile round trips per day for about 165 days, and about 22 employee round trips per day for about 165 days.

3. It is anticipated that the only component of the WVWRP that would require a new staff to operate is the WVVWF. It is anticipated that the WVVWF will employ about 20 new employees, which would result in about 20 round trips per day from the local area to support WVVWF operations.
4. Operation of the WVVWF is anticipated to generate approximately 320.3 pounds (lbs) per day or 58.45 tons/year of biosolids for the foreseeable future. MSWD is currently under contract with Western Express, which is based in Arizona. Each cubic yard equates to about 0.608 tons of biosolids; therefore, each month during Year 1, the WVVWF will generate 77.35 CY of biosolids; each month at Year 7 the WVVWF will generate 320.05 CY of biosolids; and, each month at build out, the WVVWF will generate 5,334.28 CY of biosolids. The trips generated during operation as a result of the biosolids hauling efforts will require an estimated 1 roundtrip each month in Year 1, an estimated 4 roundtrip each month in Year 7, and an estimated 69 roundtrips per month at build-out, though it is unknown whether MSWD will continue to process biosolids in this manner under build out conditions. It is assumed that each one way trip will be about 150 miles.

As depicted under items 1 through 4 above, the proposed project will generate traffic during both construction and operation of the WVWRP facilities. Congestion within the City of Desert Hot Springs has not reached build-out capacity as growth has been relatively slow, but steady over the last 18 years since the General Plan was adopted. The City's maximum peak seasonal population could reach approximately 193,456; while, as of August 2018, the City has an estimated population of about 28,750 persons, which is well below the anticipated build-out. As such, the City is not currently experiencing growth that would exceed the capacity of the surrounding roadways. The bulk of the traffic generated by the proposed project would be short-term, and related to construction. The primary off-site impacts resulting from the movement of construction trucks would include a short-term and intermittent lessening of roadway capacities due to the slower movements and larger turning radii of the trucks compared to passenger vehicles. Drivers could experience delays if they were travelling behind a heavy truck. The added traffic would be most apparent on local two-lane roadways.

In order to experience a change in LOS, a doubling of the traffic volume during peak hour periods would need to occur. As such, given the limited additional traffic that would occur on the roadways as a result of construction—approximately 122 employee trips per day for 165 days to 18 months and 45 truck trips per day for 165 days to 18 months—it is not anticipated that a doubling of peak hour traffic would occur. The construction workers are expected to arrive at and depart from the work sites during a one-hour period at the start and end of the work day, respectively, while truck trips would be spread over the course of the work day. Both the worker trips and truck trips would be spread over different roads that provide access to the locations of the WVWRP facilities. As shown on Table 4.17-3, the roadways served by the proposed project have plenty of capacity available before the roadways reach build-out capacity. However, it is anticipated that, due to the disruption of traffic that will occur as a result of the pipeline installation, mitigation will be required to ensure that a congestion management plan is implemented to prevent a significant impact from occurring. The pipeline installation will require

one lane to be closed to complete installation; this will ensure that each roadway can still operate during construction. This necessitates the implementation of a traffic management plan in order to comply with the City of Desert Hot Springs and County of San Bernardino Circulation Plans; this will ensure adequate circulation within the Desert Hot Springs and Sphere of Influence area.

Therefore, short-term construction related traffic generated by the various components of the WVWRP is anticipated to have a less than significant potential to conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit, when mitigation is implemented.

In the long-term, operation of the WVWRP will generate minimal traffic as the proposed WVWRF is the only component that will require new employees in support of WVWRF operation. Employee trips to and from the work at the WVWRF would generate about 20 roundtrips per day, and it is anticipated that the work force will generally be drawn from within the Coachella Valley, therefore a maximum 20 mile radius from the WVWRF site is anticipated for each employee trip. Additionally, operation of the WVWRF will also initially require an estimated 1 roundtrip each month in support of the biosolids hauling effort; as the WVWRF expands its capacity to meet demand, the required trips to haul the biosolids off site would increase to 4 roundtrips by Year 7, and about 69 roundtrips at build out should MSWD decide to haul the biosolids off-site in the future. The employee worker trips would occur at specific times of the day as shifts change to support the operation of the WVWRF. The Biosolids hauling efforts would occur at a specific time once each month. The minimal additional traffic generated over the long term by the WVWRF operations would not result in a doubling of peak hour traffic, and therefore, impacts to the surrounding roadways are considered less than significant. Therefore, long-term traffic generated by the WVWRF operation is anticipated to have a less than significant potential to conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. No mitigation is required.

2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Please refer to the discussion under item 1 above. As shown above, short-term construction related trips and long-term operations related trips are minimal and it is not anticipated that a doubling of peak hour traffic would occur causing the LOS of surrounding roadways or intersections to degrade. With mitigation to ensure that the traffic and congestion on the roadways, within which the sewage conveyance pipeline alignment is installed, is managed efficiently, short-term construction-related traffic impacts would be less than significant. No mitigation is required to reduce long-term operations-related traffic impacts due to the minimal additional volume of traffic that would result from WVWRF operations. Thus, implementation of the proposed WVWRP would have a less than significant potential to conflict with an applicable congestion management program, including, but not limited to level of service standards and

travel demand measures, or other standards established by the county congestion management agency for designated roads or highways, with implementation of mitigation.

3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

According to the City of Desert Hot Springs General Plan Circulation Element, the primary air transportation link for Desert Hot Springs and the Coachella Valley is the Palm Springs International Airport. Given that the proposed WWRF site—which is the closest WWRP component to the Palm Springs International Airport—is located within the City of Desert Hot Springs, about 4.1 miles north of the Airport, it is not anticipated that the project would result in a change in air traffic patterns resulting in substantial safety risks. The WWRF does not propose to construct any structures greater than a maximum of 25 feet in height, and therefore would have no potential to conflict with nearby overflights. Therefore, impacts under this issue are considered less than significant.

4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The construction of the proposed WWRP facilities would not alter the physical configuration of the existing roadways network serving the project area, and would not introduce unsafe design features.

The development of the proposed WWRF would occur within the confines of the WWRF site. Though the construction of the WWRF could temporarily increase the type of vehicles (i.e. trucks) that could be incompatible with predominantly automobiles on the local roadways, the change resulting in a mix of vehicles would stop when construction of the WWRF is complete. The potential conflicts related to the addition of a minimal amount of construction-related trucks on the surrounding roadways would be less than significant with the implementation of mitigation to ensure that a congestion management plan is implemented to prevent a significant impact from occurring.

The development of the proposed conveyance pipeline alignment would include construction within road rights-of-way to install the pipeline belowground. This effort would require lane closure at each point in the footprint of the pipeline as each segment of the pipeline is installed. As with the construction of the WWRF, construction of the conveyance pipeline alignment could temporarily increase the type of vehicles (i.e., trucks) that could be incompatible with predominantly automobile vehicles on local roadways, the change to the mix of vehicles would stop when Project construction is completed. Furthermore, the roadways within which the proposed conveyance pipeline will be installed would be returned to their former condition or better once the pipeline installation is complete. Ultimately, the potential conflicts between construction trucks and automobiles on local roadway would be mitigated through the implementation of a congestion management program.

Operation of the proposed WWRF would not result in any alteration of the physical configuration of the existing roadway network or any incompatible use that would modify the surrounding roadways, and therefore, no operational impacts are anticipated to occur. Therefore, it is anticipated that with mitigation, development and operation of the proposed WWRP facilities would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

5. Result in inadequate emergency access?

Construction trucks generated by the WVWRF construction and installation of the conveyance pipeline alignment would interact with other vehicles on project area roadways, including emergency vehicles, but would not alter the physical configuration of the existing roadway network serving the area. However, the proposed conveyance pipeline alignment would require lane closures in order to install the pipeline within existing road rights-of way. As stated in the previous sections of this Subchapter, a congestion management program shall be implemented through mitigation identified below, which will minimize impacts related to inadequate emergency access related to pipeline installation.

Generally, while individual emergency vehicles could be slowed if travelling behind a slow-moving truck, per vehicle code requirements, vehicles must yield to emergency vehicles using a siren and red lights. The WVWRF would occur within the proposed vacant site, and therefore, it is not anticipated that the surrounding roadway would be substantially affected. As such construction vehicles travelling along the roadways are expected to result in a less than significant impact on emergency access. Ultimately, with the implementation of the congestion management plan, impacts to emergency access within the area surrounding the proposed Program would be less than significant with implementation of mitigation.

6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The proposed WVWRP is located in the southern portion of the City of Desert Hot Springs. Generally, the surrounding roadways do not provide access for bike lanes and in some cases do not contain sidewalks for pedestrian access. Dillon Road—where the large segment of the conveyance pipeline will be installed—does not contain either bike lanes or sidewalks. Additionally, a majority of the GQPP Area M2 does not contain either bike lanes or sidewalks. Furthermore, the project footprint is not located within an area containing access to a bus route. Trucks accessing the site from the I-10 freeway may use the Palm Drive exit, which provides bus access from the City of Desert Hot Springs to the City of Palm Springs, but trucks accessing this route would not impact access to public transportation. The construction of the conveyance pipeline would occur within existing roadways, most of which do not provide access for public transit and bike lanes. However, there is a small potential for the project to impact access to public transit, bicycle, and pedestrian facilities because the installation of the proposed conveyance pipeline would require lane closure within existing road rights-of-way. The implementation of a construction traffic management plan through implementation of mitigation will ensure that public transit and bike access to the affected roadways will remain efficient during this period of construction. Once the pipeline is in place underground within existing roadways, the roadways will be returned to their existing condition. Impacts to roadways will be short-term, and therefore circulation of all auto and alternative modes of transportation circulation will return to normal conditions. Therefore, with the implementation of mitigation, impacts under this issue are considered less than significant.

4.17.5 Avoidance, Minimization and Mitigation Measures

If all transportation/traffic facilities identified below as mitigation are completed in a timely manner, then all future Project specific and cumulative impacts to on-site, area and regional transportation/traffic facilities can be mitigated to a less than significant level.

- 4.17-1** *The construction contractor will provide adequate traffic management resources, as determined by the County of Riverside and the City of Desert Hot Springs. MSWD shall require a construction traffic management plan for work in public roads that complies with the Work Area Traffic Control Handbook, or other applicable standard, to provide adequate traffic control and safety during excavation activities. The traffic management plan shall be prepared and approved by the City and County prior to initiation of excavation or pipeline construction. At a minimum this plan shall include how to minimize the amount of time spent on construction activities; how to minimize disruption of vehicle and alternative modes of transport traffic at all times, but particularly during periods of high traffic volumes; how to maintain safe traffic flow on local streets affected by construction at all times, including through the use of adequate signage, protective devices, flag persons or police assistance to ensure that traffic can flow adequately during construction; the identification of alternative routes that can meet the traffic flow requirements of a specific area, including communication (signs, webpages, etc.) with drivers and neighborhoods where construction activities will occur; and at the end of each construction day roadways shall be prepared for continued utilization without any significant roadway hazards remaining.*
- 4.17-2** *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 Riverside and the City of Desert Hot Springs standard design requirements.*

4.17.6 Cumulative Impacts

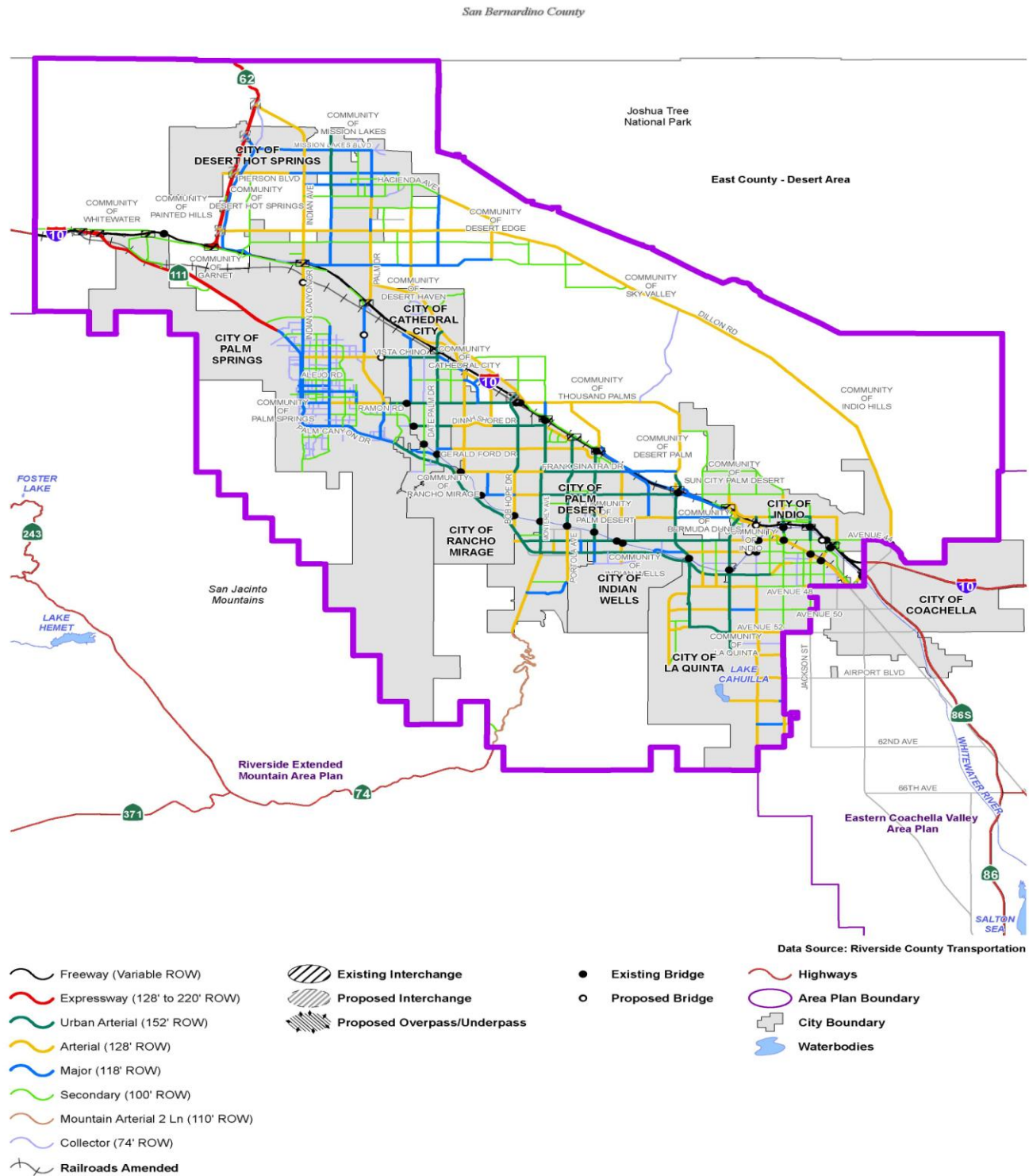
The Desert Hot Springs area is forecast to experience substantial growth in the future and as MSWD's service area continues to develop, the addition of more residential, commercial, and industrial development is expected to substantially increase traffic volumes on roadways within the service area. This substantial increase from cumulative development is expected to result in significant cumulative impacts on the existing transportation systems. Because the construction activities associated with the WVWRP facilities would increase construction traffic on roadways only in the short term, and given that the increase will not be substantive, it is not anticipated that the WVWRP would contribute to cumulative impacts on roadways such that impacts would be cumulatively considerable.

Furthermore, the WVWRF is proposed to be developed to meet the growing demand for wastewater service in the area; as MSWD's service area grows, traffic will increase substantially, but it is not anticipated that the WVWRF's contribution would not be cumulatively considerable (20 round trips per day). Therefore, the operation of the WVWRF would not result in a cumulatively considerable change in traffic and congestion in the area over the long term.

4.17.7 Unavoidable Significant Adverse Impacts

With adherence to and implementation of the above mitigation measures to prevent short-term construction impacts that would result from development of the WVWRP facilities, project-specific impacts will remain less than significant. Based on the facts and findings presented in the above analysis, the proposed Project will not cause unavoidable significant adverse impacts to the City of Desert Hot Springs and County of Riverside transportation and traffic system.

FIGURE 4.17-1
Western Coachella Valley Area Plan Circulation



December 8, 2015
 0 3 6 Miles

Disclaimer: Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.

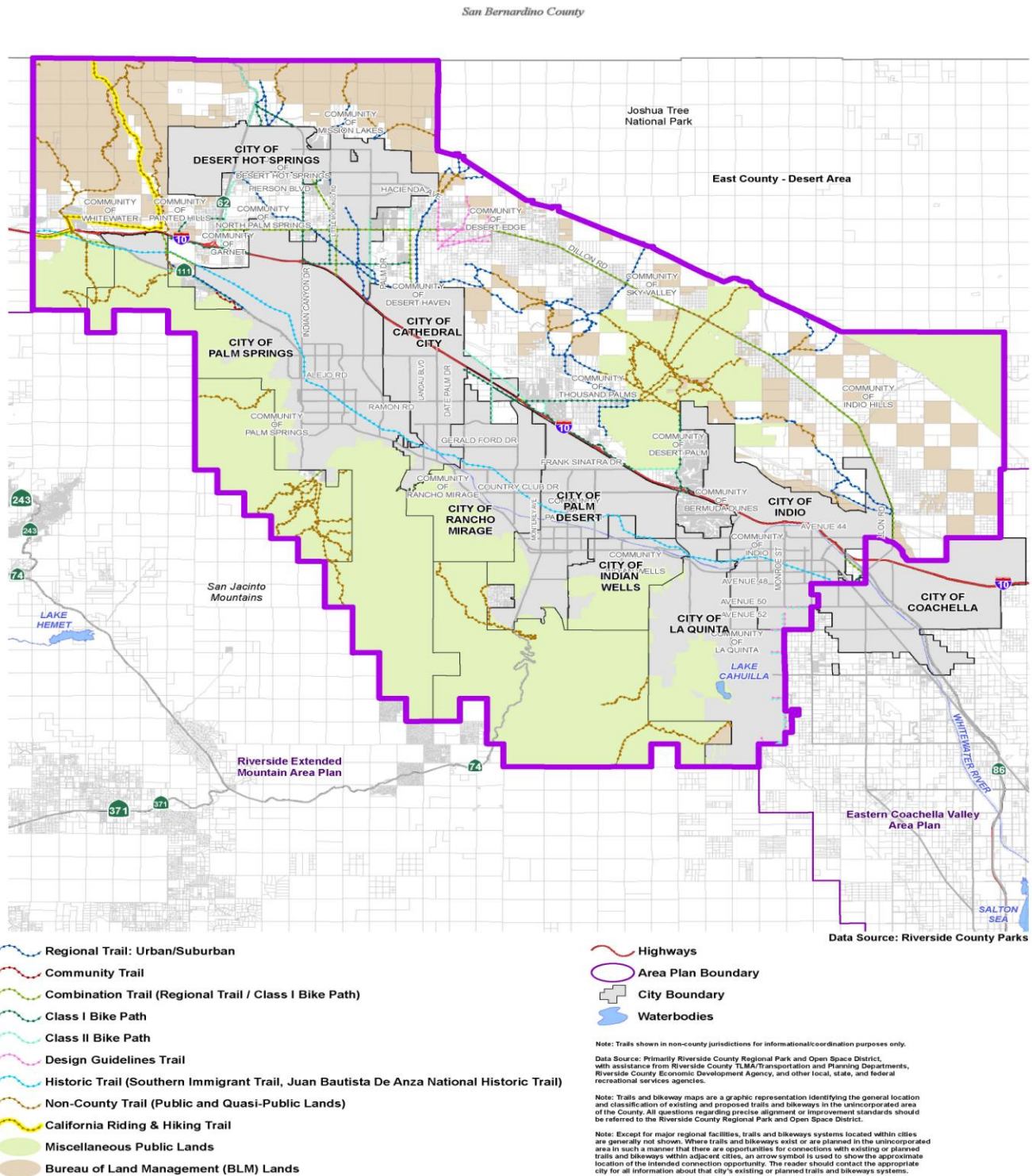


**WESTERN COACHELLA
 VALLEY AREA PLAN
 CIRCULATION**

Source: Riverside County

Tom Dodson & Associates
 Environmental Consultants

FIGURE 4.17-2
Western Coachella Valley Area Plan Trails and Bikeway System



December 8, 2015

0 3 6 Miles

Disclaimer: Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content of the source is often third party, accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.



**WESTERN COACHELLA
 VALLEY AREA PLAN
 TRAILS AND BIKEWAY
 SYSTEM**

Source: Riverside County

Tom Dodson & Associates
 Environmental Consultants

4.18 TRIBAL CULTURAL RESOURCES

4.18.1 Introduction

This Subchapter will evaluate the environmental impacts to the issue area of cultural resources from implementation of the West Valley Water Reclamation Program (WVWRP or Program). The following topics address whether the proposed Project would 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 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.

These issues will be discussed below as set in the following framework:

- Introduction
- Environmental Setting
- Regulatory Framework
- Thresholds of Significance
- Potential Impacts
- Project-Specific Mitigation Measures
- Cumulative Impact
- Unavoidable Adverse Impacts

A Historical/Archaeological Resources Survey Report: West Valley Water Reclamation Program, in and near the City of Desert Hot Springs, Riverside County, California was prepared by CRM TECH for this project, dated February 5, 2019. This document is provided as Appendix 4, Volume 2 to this Program Draft Environmental Impact Report (DEIR). This document was used in the analyses presented in this Subchapter. Additionally, the conversations with the Agua Caliente Band of Cahuilla Indians as part of the Assembly Bill 52 (AB 52) consultation process required by CEQA. This subchapter also references Comment Letter #3 from the Native American Heritage Commission (NAHC).

No comments regarding tribal cultural resources issues were raised at the public scoping meeting. The following comment was received regarding tribal cultural resources or issues in response to the Notice of Preparation:

Comment Letter #3 from the Native American Heritage Commission (NAHC) (dated 3/6/19):

- The lead agency must prepare an EIR if there is a potential for a significant effect on the environment, and as such, the lead agency must determine whether there are historical resources within the project footprint
- The lead agency must consult with all Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project; the Comment Letter details the AB 52 consultation process.

- The Comment Letter details the provisions of SB 18 and how a lead agency would comply with SB 18
- The Comment Letter details NAHC recommendations for cultural resource assessments including contacting the appropriate regional archaeological information center for record search, conducting an archaeological inventory survey if required, and submit report per requirements, contacting the Native American Heritage Commission for a sacred lands file check, as well as suggestions for mitigation to prevent impacts to subsurface resources

Response: The impacts to tribal cultural resources have been assessed in this Subchapter and, and have been assessed in the context of applicable records search and site review and investigation. Mitigation is identified where applicable.

4.18.2 Environmental Setting

The project site is located within the City of Desert Hot Springs, but the Lead Agency for the Project is Mission Springs Water District (MSWD), which has been contacted pursuant to Public Resources Code section 21080.3.1 by only California Native American tribe traditionally and cultural affiliated with MSWD's service area: the Agua Caliente Band of Mission Indians (Tribe). MSWD contacted the Tribe to initiate the AB-52 process on February 15, 2019 to notify the Tribe of the proposed project through mailed letters.

4.18.2.1 Agua Caliente Band of Cahuilla Indians

The following has been extracted from the website for the Agua Caliente Band of Mission Indians to give a sense of what the Cultural History of the Tribe:¹

Since time immemorial, the Palm Springs area has been home to the Agua Caliente Band of Cahuilla Indians for generations. Archaeological research has discovered that the Cahuilla have occupied Tahquitz Canyon for at least 5,000 years, mirroring the migration stories of the Cahuilla people.

The Cahuilla Indian name for the Palm Springs area was Sec-he (boiling water); the Spanish who arrived named it Agua Caliente (hot water). And then came the name "Palm Springs" in reference to both the native Washingtonia filifera palm tree and the Agua Caliente Hot Mineral Spring. The Hot Spring waters provided the Cahuilla with clean water, a place for bathing, and a connection point with a spiritual underworld populated by nukatem, or ancient sacred beings. The hot spring waters were also utilized for healing purposes. The ceremonial life of the Cahuilla was a rich one. Elaborate ceremonies marked every important milestone in life. Today, remnants of the traditional Cahuilla society exist such as rock art, house-pits and foundations, irrigation ditches, dams, reservoirs, trails, and food preparation areas, which still exist in the canyons.

Crops in the Agua Caliente area were irrigated by water from nearby streams. Remnants of these rock-lined irrigation ditches from Tahquitz, Andreas, and Chino Creeks are still visible in areas untouched by development. Archival documentation from the mid-1880s tells of elderly Indians memories of parents working on these ditches when they were very young.

¹ <http://www.aguacaliente.org/content/History%20and%20Culture/>

Women of the band were responsible for gathering all of the plants that were used for food. Some of the basic food plants were acorns, mesquite beans, seeds of all kinds, wild fruit, agave and yucca. In addition, the Cahuilla had an extensive trade system with neighboring tribes. Food, shells, animal and mineral products were traded with the tribes of the surrounding areas.

4.18.3 Regulatory Setting

4.18.3.1 State

California Environmental Quality Act

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code 521074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code 521084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code S210S4.3(a)).

California Public Resources Code Section 21074

A Tribal Resource is defined in the Public Resources Code section 21074 and includes the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following: included or determined to be eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources as defined in subdivision (k) of Section 5020.1;
- 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purpose of this paragraph, the lead agency shall consider the significance of the resources to a California American tribe;
- A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape;
- A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "non-unique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal resource if it conforms with the criteria of subdivision (a).

4.18.4 Thresholds of Significance

The thresholds analyzed in this section are derived from Appendix G of the CEQA Guidelines, and are used to determine the level of potential effect. For analysis purposes, development of the WVWRP would have a significant effect on cultural resources if it is determined that the project would 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:

- 1) 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
- 2) 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.

4.18.5 Potential Impacts

The following issues from the IS Form will be addressed for potential significance of cultural resource effects:

1. **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 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)?**
2. **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 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?**

As stated above, the project site is located within the service area of MSWD, which has been contacted pursuant to Public Resources Code section 21080.3.1 by only California Native American tribe traditionally and cultural affiliated with MSWD's service area: the Agua Caliente Band of Mission Indians (Tribe). MSWD contacted the Tribe to initiate the AB 52 process on February 15, 2019 to notify the Tribe of the proposed project through mailed letters. The Tribe responded on February 28, 2019 and indicated that though the project is not located within the Reservation, it is located within the Tribe's Traditional Use Area. As such, the Tribe requested the following in their response letter:

1. A Copy of the Cultural Resource Report, which has been provided to them.
2. A request for an approved Agua Caliente Native American Cultural Resource Monitor(s) during any ground disturbing activities (including archaeological testing and surveys). Furthermore, should any cultural resources be encountered, the monitor may request that destructive construction halt and the Monitor shall notify a Qualified Archaeologist (Secretary of 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.

Item number 2 above is incorporated as **Mitigation Measure 4.18-1** below to ensure that MSWD complies with the Tribe's request. With the implementation of this mitigation measure, the AB 52 consultation has concluded, though MSWD will continue conversations with the Tribe as construction of the project commences.

4.18.6 Avoidance, Minimization and Mitigation Measures

The mitigation measures, listed below, will be implemented during period of ground disturbance over the life of the proposed project, to reduce any potential cultural resource impacts from the proposed project to a less than significant level through avoidance or monitoring and management of any accidentally exposed cultural resource materials.

4.18-1 *MSWD shall retain or allow the Agua Caliente Band of Cahuilla Indians (Tribe) to retain an approved Agua Caliente Native American Cultural Resource Monitor(s) during any ground disturbing activities (including archaeological testing and surveys). Furthermore, should any cultural resources be encountered, the Monitor may request that destructive construction halt and the Monitor shall notify a Qualified Archaeologist (Secretary of 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.*

4.18.7 Cumulative Impacts

Based on the information contained herein, implementation of the proposed Project can proceed without causing any unavoidable significant adverse impacts to tribal cultural resources. Because the implementation of the proposed Project is not forecast to cause any direct, significant adverse impact to any significant tribal cultural resources with implementation of identified mitigation measures, the proposed Project has no potential to make a cumulatively considerable contribution to tribal cultural resource impacts in the project area or Riverside County in general. Tribal cultural resources are inherently site specific, and unless such resources contribute significantly to regional history or Native American values, they do not contribute to cumulative significant impacts. The tribal cultural resources on the project site do not contain any significant value that could be added to impacts from other projects in a manner that could be considered cumulatively considerable. Therefore, the project's cumulative tribal cultural resource impacts are less than significant.

4.18.8 Unavoidable Significant Adverse Impacts

Based on the information presented above, all potential tribal cultural resource impacts would be limited and can be mitigated to a less than significant impact level. As a result, there will not be any unavoidable project specific or cumulative adverse impacts to tribal cultural resources from implementing the Project as proposed. The project tribal cultural resource impacts are less than significant.

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4.19 UTILITIES AND SERVICE SYSTEMS

4.19.1 Introduction

This Subchapter evaluates the environmental impacts to the issue area of utilities and service system from implementation of the proposed Project, the proposed Mission Springs Water District (MSWD or District) West Valley Water Reclamation Program (WVWRP or Program) Program Draft Environmental Impact Report (DEIR). Utilities and Service Systems consist of the following topics/services that are provided by public agencies and private companies that deliver an essential resource or service to a development to meet modern living requirements. The specific topics considered in this Utilities and Service System Subchapter include: 4.19.2, water, sewer, wastewater treatment, and recycled water (stormwater drainage is addressed as part of the Hydrology and Water Quality Subchapter); Section 4.19.3, energy (electricity and natural gas), energy conservation plans and other dry utilities, such as communications systems; and 4.19.4, solid waste management. As noted, these utilities are provided by a mix of public agencies, such as MSWD, which is both the lead agency and project proponent, and also private companies, such as Southern California Edison (SCE).

The following references were used in preparing this Subchapter of the DEIR.

- California Gas & Electric Utilities, *California Gas Report-Southern California Gas Company*, 2006
- California Energy Commission, *2016 Building Energy Efficiency Standards Frequently Asked Questions*, Accessed November 29, 2018: http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf
- CalRecycle, Estimated Solid Waste Generation Rates website, Accessed November 14, 2018: <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates#Commercial>
- CalRecycle, Facility/Site Summary Details: Landers Sanitary Landfill website, Accessed November 14, 2018: <https://www2.calrecycle.ca.gov/SWFacilities/Directory/36-AA-0057/Detail>
- CalRecycle Facility/Site Summary Details: Lamb Canyon Landfill, Accessed November 14, 2018: <https://www2.calrecycle.ca.gov/SWFacilities/Directory/33-AA-0007/>
- City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000
- Coachella Valley Regional Water Management Group Website, Accessed November 14, 2018: <http://www.cvrwmg.org/>
- Coachella Valley Water District Boundary Map Website, Accessed November 14, 2018: <http://www.cvwd.org/>
- Coachella Valley Water District, *CVWD 2015 Urban Water Management Plan*, July 1, 2016
- County of San Bernardino, *County of San Bernardino C&D Recycling Guide*. Available at: http://cms.sbcounty.gov/portals/50/solidwaste/CandD_Recycling_Guide.pdf
- Environmental Protection Agency, *Estimating Building Related C&D Materials Amounts*, 2003. Available at: <https://www.epa.gov/sites/production/files/2017-09/documents/estimating2003buildingrelatedcanddmaterialsamounts.pdf>
- Mission Springs Water District, *MSWD 2015 Urban Water Management Plan*, June 20, 2016
- Mission Springs Water District, *MSWD 2016 Consumer Confidence Report*, 2016
- SoCalGas, Company Profile website, Accessed November 14, 2018: <https://www.socalgas.com/about-us/company-profile>
- Southern California Edison, *Circuit Reliability Review, City of Desert Hot Springs*, January 2018, Accessed November 29, 2018: <https://library.sce.com/content/dam/sce-doclib/public/reliability/deserthotsprings.pdf>
- Southern California Edison Website, Accessed November 29, 2018: <https://www.sce.com/about-us/reliability/meeting-demand>

- Southern California Edison, Power Sources 2009-2013 website, Accessed on November 14, 2018: <https://newsroom.edison.com/gallery/file?&fid=5408c48afe058b7a72075813>

4.19.2 Water, Sewer and Recycled Water: Environmental Setting

4.19.2.1 Water

Mission Springs Water District

The WVWRP is proposed by MSWD, which will both collect the wastewater that will be directed to the new WVWRF and also provide water service to the site.

The following discussion contains data gathered from the 2015 MSWD Urban Water Management Program (UWMP):

MSWD was established in 1953 and was formerly known as Desert Hot Springs County Water District. The District's water service area consists of 135 square miles including the City of Desert Hot Springs, 10 smaller communities in Riverside County, and communities in the City of Palm Springs. The District's water supply source is 100 percent groundwater produced from District-owned and operated wells; however, the basins from which the District's water supply is obtained are replenished from Colorado River and State Water Project (SWP) Exchange water. The District provides water service to approximately 37,600 people in their water service area. The District also provides sewer service to approximately 26,000 people in Desert Hot Springs, Desert Crest Country Club and Dillon Mobile Home Park.

MSWD water supply and distribution system includes three separate and distinct water supply and distribution systems with the largest of the three systems serving the community of Desert Hot Springs; the surrounding communities of West Garnet (located south of Interstate 10 and West of Indian Avenue); and North Palm Springs. The District's water service area and sphere of influence boundaries are shown on Figure 4.19-1.

MSWD's currently receives 100 percent of its water supply from groundwater produced from subbasins within the Coachella Valley Groundwater Basin, which underlies the District's water service area. MSWD primarily produces groundwater from the Mission Creek Subbasin via 10 active wells. To a lesser extent, the District also produces groundwater from the San Geronio Pass Subbasin via four active wells; and from the Garnet Hill Subbasin via one active well.

The MSWD system, inclusive of all three distribution systems, has approximately 1.26 million linear feet of pipeline. District facilities within each pressure zone include supply, storage, booster station, and distribution system components. Water storage reservoirs (or tanks) are located throughout the MSWD water system to provide operational, fire-protection and emergency water storage. The total storage capacity for the water system is 19.65 million gallons (MG).

The MSWD 2009 Comprehensive Water System Master Plan projected two water-use growth scenarios for the District. The high growth scenario equates to a population growth rate of approximately 6,500 people every five years. Applying this growth rate to the 2015 water service area (WSA) population results in a year 2040 WSA population of 70,114, which is an increase of 86.4 percent. This population growth is consistent with the projected population growth for the City of Desert Hot Springs, and provides a more modest population growth for the area outside

the City (18.3 percent) consistent with historical growth. As shown in Table 4.19-1, the population in MSWD's service area is forecast to increase by more than 86.4% by 2040.

**Table 4.19-1
CURRENT AND PROJECTED POPULATION**

| Service Area | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | Increase ^(a) |
|------------------------------------|--------|--------|--------|--------|--------|--------|-------------------------|
| City of Desert Hot Springs | 28,134 | 34,287 | 40,440 | 46,593 | 52,746 | 58,900 | 109.4% |
| Outside City of Desert Hot Springs | 9,480 | 9,827 | 10,174 | 10,521 | 10,868 | 11,214 | 18.3% |
| Total | 37,614 | 44,114 | 50,614 | 57,114 | 63,614 | 70,114 | 86.4% |

^(a) Increase relative to 2015;
Source: MSWD's 2015 UWMP

Historical water service connections by customer sector are shown in Table 4.19-2. Total water service connections have increased from 11,294 in 2000 to 12,747 in 2010 for an increase of 12.9 percent, but only increased by 1.7% between 2010 and 2015. Single family residential accounts for 89.7 percent of total water service connections.

**Table 4.19-2
HISTORICAL DISTRICT WATER SERVICE CONNECTIONS**

| Customer Sector | 2005 | 2010 | 2025 |
|----------------------|---------------|---------------|---------------|
| Single Family | 10,053 | 11,463 | 11,625 |
| Multi-Family | 670 | 705 | 709 |
| Commercial | 403 | 325 | 356 |
| Other ^(a) | 168 | 254 | 277 |
| TOTAL | 11,294 | 12,747 | 12,967 |

District water system demands for potable (drinking water) for 2015 by customer billing sector are shown in Table 4.19-3.

**Table 4.19-3
DEMANDS FOR POTABLE WATER – ACTUAL
IN AFY**

| USE TYPE | 2015 ACTUAL | |
|----------------------|-----------------------------------|--------------|
| Customer Sector | Level of Treatment When Delivered | Volume (AFY) |
| Single Family | Drinking Water | 3,881 |
| Multi-Family | Drinking Water | 1,224 |
| Commercial | Drinking Water | 417 |
| Other ^(a) | Drinking Water | 984 |
| Other ^(b) | Drinking Water | 90 |
| Losses | Drinking Water | 656 |
| TOTAL | ----- | 7,252 |

^(a) Billed institutional, industrial, irrigation

^(b) Authorized but unbilled water use for fighting fires, flushing water mains, and fire flow tests; Source: MSWD's 2015 UWMP

District water use by customer sector plus system water losses represent 100 percent of the water demands for the District's water system. Projected District water demands for the planning period (2020-2040) by water use sector and water losses are shown in Table 4.19-4.

**Table 4.19-4
PROJECTED DEMANDS FOR POTABLE WATER
IN AFY**

| Use Type | 2020 | 2025 | 2030 | 2035 | 2040 |
|----------------------|--------------|--------------|---------------|---------------|---------------|
| Single Family | 4,688 | 5,266 | 5,844 | 6,422 | 7,000 |
| Multi-Family | 1,479 | 1,661 | 1,843 | 2,025 | 2,208 |
| Commercial | 504 | 566 | 628 | 690 | 752 |
| Other ^(a) | 1,189 | 1,335 | 1,482 | 1,628 | 1,775 |
| Losses | 570 | 641 | 711 | 781 | 851 |
| Total | 8,430 | 9,469 | 10,508 | 11,547 | 12,586 |

^(a)Billed institutional, industrial, irrigation
Source: MSWD's 2015 UWMP

The total current projected water demands for potable and recycled water are shown in Table 4.19-5.

**Table 4.19-5
CURRENT AND PROJECTED TOTAL WATER DEMANDS
IN AFY**

| Use Type | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---------------------------|--------------|--------------|---------------|---------------|---------------|---------------|
| Potable Water Demand | 7,252 | 8,430 | 9,469 | 10,508 | 11,547 | 12,586 |
| Recycled Water Demand | 0 | 1,120 | 2,200 | 3,600 | 5,000 | 6,400 |
| Total Water Demand | 7,252 | 9,550 | 11,669 | 14,108 | 16,547 | 18,986 |

Total per-capita water use for new housing and development is estimated at 156.0 gallons per capita per day (gpcd) in the future (through 2040). A residential per-capita water use of 115.0 gpcd is estimated. Water loss for new developments is estimated to be 6.0 percent. Total water use is estimated to increase from 7,252 AFY in 2015 to 12,586 AFY in 2040 (an increase of approximately 73.9 percent), which is all attributable to anticipated new development. Total per-capita water use is estimated to decrease from 172.1 gpcd in 2015 to 160.6 gpcd in 2040. It should be noted that the 2020 through 2040 projections are based on normal, non-drought years. These per-capita water use projections are less than the 2015 and 2020 targets of 262.3 and 234.9 gpcd, respectively, developed for the District in the UWMP.

MSWD currently receives 100 percent of its water supply from the Upper Coachella Valley groundwater basin via District owned and operated wells. Coachella Valley Water District (CVWD) and Desert Water Agency (DWA) are helping remediate the overdraft condition of the groundwater basin by artificial replenishment with imported Colorado River and State Water Project (SWP) Exchange water. Colorado River water is used to recharge the Lower Whitewater River Subbasin, while SWP Exchange water is used to recharge the Upper Whitewater and Mission Creek subbasins. The SWP has contracts to deliver 4.172 million AFY to 29 contracting agencies. CVWD and DWA jointly manage their combined SWP Table A Amounts, allocating

costs in proportion to total groundwater production within the Upper Whitewater and Mission Creek portions of their respective service areas.

Because groundwater production continues to exceed groundwater replenishment, and groundwater overdraft persists within the Mission Creek and Whitewater River subbasins, continued artificial recharge is necessary to either eliminate or reduce the effects of annual and cumulative overdraft, and reduce the resultant threat to the groundwater supply. According to projections for 2015, DWR will deliver 20% of Table A water allocation requests, resulting in deliveries of 38,820 AF of Table A water to the Coachella Valley agencies. The state's historic drought condition and lower than normal reservoir levels have been the cause of lower allocations delivered from CDWR in the last two calendar years.

The District has historically produced groundwater from the Coachella Valley Groundwater Basin; primarily from the Mission Creek Subbasin via 9 active wells; and to a lesser extent, from the San Geronio Pass Subbasin via four active wells and from the Garnet Hill Subbasin via one active well. A summary of groundwater pumped by the District by subbasin from 2011 through 2015 is shown in Table 4.19-6.

**Table 4.19-6
GROUNDWATER VOLUME PUMPED
IN AFY**

| Groundwater Type | Basin Name | 2011 | 2012 | 2013 | 2014 | 2015 |
|-------------------------|----------------------------------|----------------|----------------|----------------|----------------|----------------|
| Alluvial Basin | Mission Creek | 7,864.4 | 8,112.7 | 8,129.3 | 7,755.0 | 6,790.5 |
| Alluvial Basin | Garnet Hill | 497.4 | 176.7 | 202.1 | 216.0 | 316.2 |
| Alluvial Basin | San Geronio River – Cabazon Unit | 149.8 | 145.5 | 147.7 | 155.0 | 145.3 |
| Total | | 8,511.6 | 8,434.9 | 8,479.1 | 8,126.0 | 7,252.0 |

Groundwater quality within the subbasins that serve MSWD were reviewed in the UWMP, and found to be excellent quality. All urban water served by MSWD meets state and federal drinking water quality standards. General water quality characteristics of groundwater produced within MSWD's service area includes nitrates below the maximum contamination level (MCL) of 45 milligrams per liter (mg/L); total dissolved solids (TDS) ranging from 200 mg/L to 650 mg/L—all below the MCL of 1,000 mg/L; volatile organic compounds (VOCs) were detected in some wells but were below the MCL of 5 mg/L; uranium—the source of which in the Coachella Valley is either naturally occurring uranium in the geologic formations of the basin, or from contamination along the Colorado River—levels do not exceed the 20 picocuries per liter (pCi/L) MCL.

The UWMP states that recycled water transmission and distribution system piping and other infrastructure will be constructed to accommodate a recycled water demand of 1.0 MGD (1,120 AFY) by 2020, and 6,400 AFY by 2040. With that said, the projected water supply for the District in the future is outlined in Table 4.19-7 below. The proposed WVWRP will contribute to the District's intent to make recycled water available as it will provide the District to expand the new WVWRF to treat wastewater to a tertiary treatment level in the future, which would make recycled water available within the District.

**Table 4.19-7
PROJECTED WATER SUPPLY VERSUS WATER DEMAND
IN AFY**

| Water Supply | 2020 | | 2025 | | 2030 | | 2035 | | 2040 | |
|----------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | Supply | Demand | Supply | Demand | Supply | Demand | Supply | Demand | Supply | Demand |
| Groundwater | 8,430 | 8,430 | 9,469 | 9,469 | 10,508 | 10,508 | 11,547 | 11,547 | 12,586 | 12,586 |
| Recycled Water | 1,120 | 1,120 | 2,200 | 2,200 | 3,600 | 3,600 | 5,000 | 5,000 | 6,400 | 6,400 |
| Total | 9,550 | 9,550 | 11,669 | 11,669 | 14,108 | 14,108 | 16,547 | 16,547 | 18,986 | 18,986 |

Coachella Valley Water District

The majority of the City of Desert Hot Springs is served by MSWD; however, CVWD boundary lies in an area south of 20th Avenue, and a small area west of Mountain View. Both the MSWD and CVWD utilize deep wells to extract groundwater from the Mission Creek and Garnet sub basins. CVWD serves the area in which MSWD proposes to, as part of the WVWRP, construct a collection system for the Groundwater Quality Protection Program (GQPP) Area M-2, which would allow individuals in Area M-2 who currently utilize a septic system to hire a contractor to dig up the lids to the septic tank, pump out the tank, and decommission the tank in accordance with SWRCB guidelines. This area is within CVWD's service area for potable water supply. However, MSWD will serve this area for wastewater collection purposes.

CVWD was formed in 1918 to protect and conserve local water sources. Since then, CVWD has grown into a multifaceted agency that delivers irrigation and domestic (drinking) water, collects and recycles wastewater, provides regional storm water protection, replenishes the groundwater basin and promotes water conservation. CVWD's service area covers approximately 1,000 square miles from the San Geronio Pass to the Salton Sea, mostly within the Coachella Valley in Riverside County, California. The boundaries of CVWD extend into small portions of Imperial and San Diego counties (Figure 4.19-2).

A large part of CVWD's history is in agricultural irrigation; however, today it meets the water-related needs of more than 107,000 homes and businesses throughout its service area. CVWD provides water-related services for its customers in the areas of urban water supply, wastewater collection and treatment, recycled water, agricultural irrigation, drainage management, imported water supply, groundwater replenishment, stormwater management and flood control, and water conservation.

In 2015, CVWD's domestic water system provided 92,974 AF of water per year to 216,861 residents through 107,358 active meters. The pressurized pipeline distribution system has 30 pressure zones and consists of approximately 96 deep wells, over 2,000 miles of pipe, and 135 million gallons of storage in 61 enclosed reservoirs.

4.19.2.2 Wastewater

The existing wastewater collection system for the water service area, which is operated and maintained by MSWD, consists of a network of approximately 120 miles of sewers, which are concentrated in the central portion of the District where the majority of the populace and businesses reside.

MSWD has an ongoing program to connect existing residences currently on septic systems to sewer collectors that have been constructed or are in the process of being constructed. Since 2005, 3,520 parcels have been converted from septic to sewer service for a total of 7,700 parcels. An additional 695 parcels will be converted by 2016. The proposed WVWRP is part of this program, and will construct a collection system for the GQPP Area M-2, which would allow individuals in Area M-2 who currently utilize a septic system to hire a contractor to dig up the lids to the septic tank, pump out the tank, and decommission the tank in accordance with SWRCB guidelines.

MSWD operates two wastewater treatment plants serving 7,300 parcels and a population of approximately 20,400 within its service area. The Horton Wastewater Treatment Plant (Horton WWTP), located on Verbena Drive about a half mile south of Two Bunch Palms Trail, has a capacity of 2.3 MGD (2,800 AFY). The plant uses an extended aeration process for treatment and disposes of the secondary wastewater, which is not disinfected, in adjacent percolation/evaporation ponds. The sludge generated from the treatment process is run through a dewatering sludge filter press and then trucked offsite to proper disposal areas. The average daily flow metered to the Horton Plant in 2015 was 1.69 MGD (which is equal to 1,893 AFY); while the average daily flow metered to the Desert Crest Plant was 0.04 MGD (which is equal to 45 AFY), as shown in Table 4.19-8.

**Table 4.19-8
WASTEWATER COLLECTED WITHIN THE MSWD SERVICE AREA IN 2015
IN AFY**

| Wastewater Treatment Plant | Method of Disposal | Volume of Wastewater Collected in 2015 (AFY) |
|-----------------------------------|---------------------------|---|
| Alan L Horton | Percolation Ponds | 1,893 |
| Desert Crest | Percolation Ponds | 45 |
| Total | | 1,938 |

Both District wastewater treatment plants uses an extended aeration process for treatment and dispose of the secondary wastewater, which is not disinfected, in adjacent percolation/evaporation ponds located within the plant on the southwest (potable water) side of the Mission Creek Fault. In addition, effluent is used for irrigation and maintenance at the treatment plants.

4.19.2.3 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Would not have sufficient water supplies available to serve the project from existing entitlements and resources, and new and/or expanded entitlements would be needed.
- Would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- Would require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

- Would result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

No comments specific to this topic were received in response to the Notice of Preparation. No comments were received at the scoping meeting held for the proposed Project.

Federal

In 1972, the Federal Water Pollution Control Act (Clean Water Act) was amended to prohibit the discharge of pollutants to waters of the United States unless the discharge complies with a National Pollutant Discharge Elimination System (NPDES) permit. The Clean Water Act (CWA) focused on tracking point sources, primarily from wastewater treatment facilities and industrial waste dischargers, and required implementation of control measures to minimize pollutant discharges. The CWA was amended again in 1987, adding Section 402(p), to provide a framework for regulating municipal and industrial stormwater discharges. In November 1990, the U.S. Environmental Protection Agency (USEPA) published final regulations that establish application requirements for specific categories of industries, including construction Projects that encompass greater than or equal to five acres of land. The Phase II Rule became final in December 1999, expanding regulated construction sites to those greater than or equal to one acre.

The regulations require that stormwater and non-stormwater runoff associated with construction activity, which discharges either directly to surface waters or indirectly through municipal separate storm sewer systems (MS4s), must be regulated by an NPDES permit.

Local

Mission Springs Water District

MSWD, as the Lead Agency, will also be the water service provider for the proposed Project. MSWD is a public agency and retail water service provider, organized and operating as a municipal water district pursuant to the Municipal Water District Law, Water Code section 71000 et seq. As such, MSWD is vested with broad statutory powers to provide water service and regulate water supply related issues within its service territory. Pursuant to that authority, on November 17, 2016, the MSWD Board of Directors acted to remove restrictions on watering days for outdoor landscaping by rescinding Resolution No. 2015-06. Customers are now permitted to water on any day. The Board also enacted Resolution No. 2016-25 which continues time of day watering restrictions to before 6 a.m. and after 6 p.m. Restrictions issued by the Governor and codified in CA State Water Board Emergency Regulation, Resolution No. 2016-0029 are also still in effect. Additionally, MSWD has implemented a Turf Rebate Program to incentivize the removal of high water consuming turf grass (and/or significant groundcover plant materials that are similar in water demand) and replace it with desert-friendly, water-efficient landscaping.

City of Desert Hot Springs General Plan Policies

The following are applicable policies from the City of Desert Hot Springs General Plan related to Water and Sewer:

Water, Sewer, & Utilities Element: Goal 1

Economical water, sewer and utility facilities and services, which safely and adequately meet the needs of the City at build out.

Water, Sewer, & Utilities Element: Goal 2

A citywide sewage collection and treatment system.

Water, Sewer, & Utilities Element: Policy 1

Monitor resource management activities of the MSWD, CVWD and Regional Water Quality Control Board to preserve and protect water resources.

Water, Sewer, & Utilities Element: Policy 2

The City shall support the formation of neighborhood-wide Assessment Districts for the purpose of sewer installation.

Water, Sewer, & Utilities Element: Policy 7

The City shall coordinate with Mission Springs Water District in monitoring County regulation of septic tank pumping within the City and its Sphere-of-Influence.

Water, Sewer, & Utilities Element: Policy 10

Major utility facilities shall be sited to assure minimal impacts to the environment and the community, and minimize potential environmental hazards.

4.19.2.4 Project Impacts

1. Would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Please refer to Chapter 4.10 Hydrology and Water Quality, or more detailed information regarding water treatment and water quality issues. The Program as it is currently proposed, intends to meet effluent quality limits in compliance with anticipated Waste Discharge Requirements (WDR) to be issued by the Colorado River Basin Regional Water Quality Control Board (RWQCB). The new WVWRF is planned to be designed to achieve the same level of treatment as the Horton WWTP with additional denitrification process to achieve Total Nitrogen (TN) below 10 mg/l. The design of the initial facility will have provisions to accommodate a future upgrade to disinfected tertiary effluent standards for water recycle in accordance with California Title 22.

The discharge of tertiary-treated effluent treated to Title 22 levels from the existing treatment plants are currently subject to waste discharge requirements regulated by the RWQCB and Waste Discharge Requirements. As described above in the regulatory framework, effluent quality standards require tertiary treatment with filters and disinfection equivalent to Title 22 requirements for recycled water, due to the use of the receiving water for recreation. In the future, the proposed upgrades would comply with the provisions of the Order. The treatment facility upgrades would be designed to comply with the applicable treatment and discharge requirements, and therefore, compliance with permit limitations would ensure that impacts would be less than significant. Prior to upgrading the new WVWRF to meet tertiary requirements, the proposed project is anticipated to be constructed to comply with WDR anticipated to be issued by the RWQCB.

During project construction of all of the conveyance system and the WVWRF, a minimal amount of wastewater would be generated by construction workers and collected by portable toilet facilities. All waste generated in portable toilets would be collected by a permitted portable toilet waste hauler and appropriately disposed of at one of the Riverside County identified liquid

waste disposal stations. These waste disposal stations have been appropriately permitted by the RWQCB, and, as such, the impacts from construction of the conveyance system and the new WVWRF would be less than significant.

During operation, the new sewer pipeline system would collect sewage from customers within the WVWRF's new service area to be convey, and in and of themselves would not generate any wastewater, and therefore, would not exceed wastewater treatment requirements; no impacts from the operation of the new sewer conveyance system are anticipated to occur. Ultimately, for the entire WVWRP operation, the program is not anticipated to exceed the wastewater treatment requirements of the Colorado River Basin RWQCB through compliance with conditions and requirements of the WDR, and in the future, with Title 22. Impacts under this issue are considered less than significant.

2. Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Water Facilities

The proposed WVWRF site will be served by an existing MSWD potable water line adjacent to the site on Little Morongo Road. The proposed WVWRF is not anticipated to require a significant amount of water in order to operate. Generally, the only facilities within the WVWRF that will require potable water are the Belt Presses, Restroom facilities, and the Laboratory facilities. It is anticipated that, like MSWD's other two wastewater treatment plants, the WVWRF would use effluent from its treatment process for irrigation and maintenance at the treatment plant. Between November of 2017 and October of 2018, the Horton WWTP used 6.15 AFY of potable water. It is anticipated that the new WVWRF would require less potable water than that which is currently required to serve the Horton WWTP by about 0.63 AFY because the new WVWRF will not require Laboratory Facilities; therefore, the proposed WVWRF is anticipated to require about 5.52 AFY of potable water to serve the project. In 2015, institutional facilities such as the proposed WVWRF demanded 984 AFY of potable water in 2015; the demand for potable water in 2020 is anticipated to grow to 1,189 AFY. As such, given that the anticipated demand for potable water in this sector is anticipated to grow between 2015 and 2020, the development of the WVWRF—which is anticipated to be completed by 2020—and the subsequent demand for potable water that the operation of the facility will require, would be well within MSWD's planned supply and demand projections for potable water in 2020. As such, there would be no requirement for the construction of new or expanded water facilities to serve the proposed project. Because construction of new or expanded facilities is not required to accommodate the operational requirements of the WVWRF, there would be no impacts associated with the provision of these facilities to serve the WVWRF.

As stated in previous sections, the proposed project is anticipated to employ approximately 20 persons in support of the operation of the WVWRP. According to the 2015 UWMP, the per capita water use in 2020 (when the WVWRP is anticipated to be in operation) is 173.5 gpcd. As such, if each of the 20 new employees was to be a new resident within MSWD's service area, the project would demand of about 3,470 gallons per of potable water day, or about 3.89 AFY. According to the data presented above, in 2015, the supply and demand for potable water within MSWD's service area was 7,252 AFY, and in 2020, the supply and demand for potable water within MSWD's service area is anticipated to be 8,430 AFY, which leaves plenty of available

supply to accommodate the potential for the proposed WVWRP to demand 3.89 AFY of potable water.

The proposed WVWRP includes the construction of a sewer conveyance pipeline that will connect the GQPP Area M-2, which would allow individuals in Area M-2 who currently utilize a septic system to hire a contractor to dig up the lids to the septic tank, pump out the tank, decommission the tank in accordance with SWRCB guidelines. This new conveyance system will utilize the existing Dos Palmas Lift Station (DPLS) to re-direct flows to the new WVVWF. Construction workers installing the conveyance line and/or the WVVWF would temporarily require use of portable sanitary units and demand water. Wastewater generated and water demanded during construction of the various elements of the WVWRP would be minimal and would not require the construction of new wastewater or water treatment facilities. Because construction of new or expanded facilities is not required to accommodate the development of the sewer conveyance pipeline or the WVVWF, there would be no construction impacts associated with the provision of these facilities to serve the new sewer conveyance alignment. During operation, the proposed conveyance system would not generate wastewater during their operation. Therefore, the development of the sewer conveyance alignment would not require the expansion or construction of a new wastewater or water treatment facilities.

Wastewater Facilities

Implementation of the proposed WVWRP would result in construction and operation of new or expanded wastewater treatment facilities and associated infrastructure (including the sewage conveyance line and pipeline connections), which is described in detail in Chapter 3, Project Description. The WVWRP includes the construction of the WVVWF, which would be installed and begin operation of Phase 1 with design flow of 1.5 MGD; the WVVWF would be constructed in phases with ultimate “build-out” capacity of up to 20 MGD. The WVVWF would be planned, designed, and implemented to permit MSWD to allow future expansion with minimal demolition and removal of any Phase 1 facilities. Initially, the level of treatment will be secondary with denitrification discharging to onsite infiltration basins. Provisions will be made to accommodate upgrades to advanced secondary and tertiary treatment as future steps toward producing recycle water depending on growth, demand, and available funding. Finally, the WVWRP includes the construction of a sewer conveyance pipeline that will connect the GQPP Area M-2, which would allow individuals in Area M-2 who currently utilize a septic system to hire a contractor to dig up the lids to the septic tank, pump out the tank, and decommission the tank in accordance with SWRCB guidelines. This new conveyance system will utilize the DPLS to re-direct flows to the new WVVWF. The environmental effects associated with the WVWRP are documented throughout this Program DEIR. As stated in the preceding Sections of this Chapter, there will be not be any significant and unavoidable impacts associated with the overall development of the WVWRP.

As stated under Water Facilities above, construction workers would temporarily require use of portable sanitary units during construction of the proposed WVVWF site. Wastewater generated and the demand for water during construction of the proposed project would be minimal and would not require the construction of new water or wastewater treatment facilities. Because construction of new or expanded facilities is not required to accommodate development of the WVVWF, there would be no construction impacts associated with the provision of these facilities.

During operation, approximately 20 new employment opportunities would be created to serve the treatment facility. In 2015, the average demand per customer within MSWD's wastewater service area was 0.095 AFY; by 2020 the population is anticipated to grow resulting in MSWD's service area to generate 2,750 AFY of wastewater for a population of nearly 29,000 persons. As such, the proposed project is only anticipated to create 20 new employment opportunities within the service area, which could result in a maximum of 20 new residents in the area. These 20 new residents would have the potential to generate approximately 1.9 AFY of wastewater, which leaves plenty of available supply within MSWD's projected wastewater generation to accommodate the potential for the proposed WVWRP to result in the generation of an additional 1.9 AFY of wastewater.

Wastewater generated and the demand for water by the additional employees at the new facility would be nominal. This nominal increase in the generation of wastewater by the new employees would be accommodated by either existing treatment plants or by the proposed WVVRF. There would be no requirement for the construction of new or expanded wastewater treatment facilities to serve the proposed project, particularly because the proposed project will develop a wastewater treatment facility that would serve a portion of MSWD's service area. Because construction of new or expanded facilities is not required to accommodate the project, there would be no construction impacts associated with the provision of these facilities to serve the overall Program as proposed.

3. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The development of the WVVRF at the proposed site would result in the addition of impervious surfaces, which would increase stormwater quantity. The WVVRF site is currently largely pervious because the entire site is a vacant dirt lot; desert land with shrubs, and scattered rock comprise the majority of the project site. The development of the features of the WVVRF would result in impervious area; this increase would affect onsite drainage patterns as well as offsite drainage volumes, which would require new or expanded stormwater drainage facilities. However, the proposed WVVRF site will remain largely pervious even with the development of the WVVRF; additionally, an important component of the development of the proposed WVVRF is the installation of infiltration basins at the southern border of the site (shown on Figure 3-2 of Chapter 3, Project Description). The site naturally slopes from north to south, which would direct much of the onsite runoff to the proposed infiltration basins. Mitigation is required to ensure that all runoff is directed towards the proposed infiltration basins or is otherwise contained to prevent offsite runoff, but given the anticipated availability of pervious area within the site once the WVVRF is developed, it is anticipated that impacts related to stormwater runoff will be less than significant.

The proposed WVWRP includes the development of a sewage conveyance pipeline that would connect the GQPP Area M-2, and which would allow individuals in Area M-2 who currently utilize a septic system to hire a contractor to dig up the lids to the septic tank, pump out the tank, decommission the tank in accordance with SWRCB guidelines. This new conveyance system will utilize the DPLS to re-direct flows to the new WVVRF. The proposed pipeline alignment will be located underground and would not permanently alter the existing drainage within the roadways and throughways in which the alignment will be constructed. This is because the roadways and throughways would be repaved or recompacted to their original or better condition once the pipeline alignment has been installed. The pipelines, therefore, would not require the construction of new or expanded stormwater drainage facilities. Because there

would be no requirement for the construction of new or expanded drainage facilities to serve the proposed project, no impacts are anticipated to occur as a result of construction of the proposed sewer pipeline alignment.

Ultimately, for the overall WVWRP, mitigation is required to minimize impacts to stormwater drainage facilities; with mitigation, no significant impacts are anticipated.

4. Would not have sufficient water supplies available to serve the project from existing entitlements and resources, and new and/or expanded entitlements would be needed?

Please refer to the analysis discussed under item 1 above. Based upon the information provided in the review and analysis above, the lead agency has determined that adequate water supply is available to serve the Project. The proposed WVWRF will utilize treated effluent for irrigation and maintenance purposes, which reduces the amount of potable water required to operate the site. As stated above, the operation of the WVWRF is anticipated to require 5.52 AFY of potable water, which is well within MSWD's projected demand and supply of potable water in 2020. Furthermore, construction of the WVWRF and the conveyance line will require a minimal amount of potable water, such that MSWD would have sufficient water supply available to serve the WVWRP without the need for new or expanded entitlements. Therefore, no significant impacts are anticipated.

5. Would result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Please refer to the discussion under item 2 above. As stated above, the proposed WVWRP would expand MSWD's wastewater treatment capacity to meet the future demands of its service area. The WVWRP would expand the capacity of MSWD's ability to treat wastewater by 1.5 MGD initially, and eventually, the development of the WVWRF would be capable of being expanded to treat 20 MG of wastewater per day. The construction of the proposed project will not require expanded wastewater treatment capacity because construction workers would temporarily require use of portable sanitary units during construction of the proposed WVWRF and sewage conveyance pipeline alignment. Wastewater generated and the demand for water during construction of the proposed project would be minimal, therefore adequate capacity exists to serve the project during construction, and therefore construction impacts are less than significant.

As stated under item 2 above, the proposed project would employ a maximum of 20 new persons to serve the facilities that are proposed as part of the WVWRP. If each of these new employees ultimately relocate within MSWD's service area, these 20 new residents would have the potential to generate approximately 1.9 AFY of wastewater, which leaves plenty of available supply within MSWD's projected wastewater generation to accommodate the potential for the proposed WVWRP to result in the generation of an additional 1.9 AFY of wastewater. Therefore, during operation of the WVWRP, no significant adverse impact to wastewater treatment services or capacity is anticipated with implementation of the proposed Project. Furthermore, the proposed project would expand wastewater treatment services within MSWD's service area, which would be beneficial to future development as the community experiences anticipated growth.

4.19.2.5 Avoidance, Minimization and Mitigation Measures

Requirements established by the Colorado River Basin RWQCB with respect to compliance with RWQCB standards and the conditions and requirements of the WDR are mandatory. Providing water and wastewater service to the proposed Project are mandatory. However, in order to ensure that stormwater is managed effectively on site, the following mitigation measure shall be implemented.

4.19.2-1 *Implementation of a Drainage Plan to Reduce Downstream Flows.* *Prior to construction of project facilities, MSWD shall prepare a drainage plan that includes design features to reduce stormwater peak concentration flows exiting the above ground facility sites so that the capacities of the existing downstream drainage facilities are not exceeded. These design features could include bioretention, sand infiltration, return of stormwater for treatment within the treatment plant, and/or detention facilities.*

4.19.2.6 Cumulative Impacts

Wastewater

Future cumulative development could exceed wastewater treatment requirements of the Colorado River Basin RWQCB and result in potential significant cumulative impacts. As discussed above, the proposed WVWRP would result in less than significant impacts associated with exceedance of wastewater treatment requirements because it must comply with conditions and requirements of the WDR, and in the future, with Title 22. Since the project would result in less than significant impacts related to exceedance of wastewater treatment requirements, the project's contribution to cumulative impacts is not considered cumulatively considerable, and therefore, would result in a less than significant cumulative impact related to compliance with the RWQCB.

The development of expanded wastewater treatment services—as proposed by the WVWRP—within the MSWD service area is considered a benefit to cumulative development in the future within the District's service area. The WVWRP addresses long term projections of growth and capacity needs within the MSWD service area. The District service area is anticipated to experience growth that would occur concurrently with the District's ability to serve new customers through the expanded wastewater treatment services that would be created by the implementation proposed WVWRP. Future cumulative development is forecast to require new wastewater facilities; however, the proposed project is anticipated to meet the demands of forecast growth. As such, the proposed Program, in and of itself, would not result in the need for construction of wastewater treatment facilities; therefore, the proposed WVWRP would not contribute to cumulative environmental effects, and thus, would not result in cumulative impacts.

Water

Future cumulative development within the MSWD service area is expected to require new or expanded water supply resources or entitlements to serve the increase in urban development. MSWD provides water to the City of Desert Hot Springs and to some of the surrounding community. Its 2015 UWMP indicates that it anticipates that the District will have adequate water supply to meet future demand. The implementation of the WVWRP would accommodate the increasing water demand because the Program would eventually provide recycled water to customers within MSWD's service area, which the District projects will be necessary to meet overall projected water demand in the future. Because the project would result in a less than significant impact related to expanded water supply resources, the project's contribution to

cumulative impacts is not considered cumulatively considerable, and therefore, would result in a less than significant cumulative impact.

Stormwater

Future cumulative development within the MSWD service area would result in the removal of pervious surfaces and increase impervious surfaces. Increases in impervious surfaces would increase stormwater quantity. This increase could cumulatively affect on-site drainage patterns as well as off-site drainage volume and require the construction and operation of new and/or expanded stormwater drainage facilities. This cumulative need for the construction of new and/or expanded stormwater drainage facilities could result in significant environmental effects. Because the proposed WVWRP could also require new and/or expanded stormwater drainage facilities of which their construction could cause significant environmental effects, the program's contribution to cumulative effects would be significantly considerable; however, the implementation of mitigation to prevent significant impacts to the local stormwater collection facilities would preclude the project from contributing to cumulatively considerable stormwater impacts.

4.19.2.7 Unavoidable Significant Adverse Impacts

The foregoing evaluation demonstrates that even though the proposed Project will cause a small unavoidable change in the demand for water, wastewater and recycled water utility systems within MSWD's service area. The overall intent of the project is to expand these services: the Program would construct a new wastewater treatment plant, which would expand MSWD's capacity to treat wastewater within its service area; the Program involves the future expansion of the new WVWRF to treat wastewater to tertiary treatment levels thereby making recycled water available; and, the Program would protect water quality within the underlying groundwater basin by allowing individuals in GQQP Area M-2 who currently utilize a septic system to hire a contractor to dig up the lids to the septic tank, pump out the tank, and decommission the tank in accordance with SWRCB guidelines. As such these various systems are anticipated to meet the demands of the Program without causing a significant unavoidable adverse impact. However, given that the proposed Program would develop a wastewater treatment plant and associated infrastructure to support the operations of the new WVWRF, there will not be any significant and unavoidable impacts associated with the overall development of the WVWRP.

4.19.3 Energy (Electricity, Natural Gas and Dry Utilities)

The California Public Utilities Commission (CPUC) regulates investor-owned electric and natural gas utilities operating in California. The California Energy Commission is the state's primary energy policy and planning agency.

4.19.3.1 Electricity: Environmental Setting

Southern California Edison Company (SCE) is the primary distribution provider for electricity in the project area. SCE provides service to 15 million people within a 50,000 square mile area of central, coastal, and southern California, including the City of Desert Hot Springs. SCE's service territory includes about 430 cities and communities with a total customer base of about 5 million residential and business accounts. SCE maintains more than 105,773 miles of distribution lines, and 1.4 million electricity poles.

The City of Desert Hot Springs is served by the Devers Substation, north of Dillon Road in the southwestern portion of the City's Sphere of Influence, and the Coffee Substation, located on Camino Aventura west of Palm Drive, just south of city limits.

According to the City of Desert Hot Springs General Plan, electrical rates in the Coachella Valley continue to be among the highest in the nation. On average, the typical residential electric consumer uses approximately 6,000-kilowatt hours per year. The higher summer temperatures in the Coachella Valley substantially increase the demand for electricity for air conditioning, and costs associated with this service are also significant.

4.19.3.2 Natural Gas: Environmental Setting

Southern California Gas Company (SoCalGas) is a gas-only utility that serves residential, commercial, and industrial customers and provides gas for enhanced oil recovery and electricity production. SoCalGas serves 12 counties: Fresno, Imperial, Kern, King, Los Angeles, Orange, Santa Barbara, San Bernardino, San Luis Obispo, Tulare, Ventura, and Riverside. Natural gas is a "fossil fuel," indicating that it comes from the ground, similar to other hydrocarbons such as coal or oil. SCGC purchases natural gas from several bordering states. Interstate pipelines serve California.

According to the City of Desert Hot Springs General Plan, natural gas service is provided in the City by Southern California Gas, which has regional and local distribution lines in the City and its Sphere-of-Influence. It is used for space heating, domestic and commercial hot water, cooking and air-conditioning applications. On average, the typical energy-consuming household in our region uses approximately 6,600 cubic feet of natural gas each month. Services are available to all prospective users and nearby major transmission facilities assure availability for most anticipated needs, be they residential, commercial or industrial. Cost of services varies seasonally and with amount of use.

4.19.3.3 Thresholds of Significance

State

California Code of Regulations

California Code of Regulations Title 24, Part 6, California's Energy Efficiency Standards for Residential and Nonresidential Buildings was established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. New standards were adopted by the Commission in 2008 as mandated by Assembly Bill 970 to reduce California's electricity demand. The new standards went into effect on August 1, 2009. The standards (along with standards for energy efficient appliances) have saved more than \$206 billion in electricity and natural gas costs since 1978. In 30 years, California will have saved enough energy to power 2.2 million homes, reducing the need to build 12 additional power plants¹.

¹http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf

Senate Bill 1305

SB 1305, the Power Source Disclosure requires retail suppliers of electricity to disclose to consumers “accurate, reliable, and simple to understand information on the sources of energy that are being used ...” (Public Utilities Code Section 398.1 (b)).

The Energy Commission promotes statewide energy efficiency by setting and updating California’s building and appliance energy efficiency standards. These standards are helping California achieve its goal of having all newly constructed low-rise residential buildings be zero-net energy (ZNE) by 2020 and all new commercial buildings be ZNE by 2030. The Energy Commission also supports the state’s landmark 33 percent Renewables Portfolio Standard (RPS) by certifying renewable power plants and verifying the renewable electricity used to comply with the standard, and by enforcing RPS compliance for the state’s publicly owned utilities.

2008 Scoping Plan, California Air Resources Board

The Scoping Plan was originally approved in 2008. In 2011, the Functional Equivalent Document for the Scoping Plan was amended. The Scoping Plan was re-approved by the Air Resources Board August 24, 2011, including the Final Supplement to the Functional Equivalent Document (FED), posted below. The Scoping Plan provides the outline for actions to reduce California’s GHG emissions.

Local

City of Desert Hot Springs General Plan Policies

The following are applicable policies from the City of Menifee General Plan related to Energy:

Water, Sewer, & Utilities Element: Goal 1

Economical water, sewer and utility facilities and services, which safely and adequately meet the needs of the City at build out.

Water, Sewer, & Utilities Element: Policy 8

The City should take a proactive role in forming a cooperative program with adjacent cities to reduce the costs of electric service.

Water, Sewer, & Utilities Element: Policy 9

Utility lines on major streets and scenic roadway shall have primary consideration for undergrounding.

Water, Sewer, & Utilities Element: Policy 7

The City shall coordinate with Mission Springs Water District in monitoring County regulation of septic tank pumping within the City and its Sphere-of-Influence.

Water, Sewer, & Utilities Element: Policy 10

Major utility facilities shall be sited to assure minimal impacts to the environment and the community, and minimize potential environmental hazards.

Water, Sewer, & Utilities Element: Policy 11

The City shall encourage the coordinated and shared use of underground transmission corridors as a means of minimizing repeated excavations into the streets.

Natural gas service would be in accordance with SoCalGas' policy and extension rules on file with the California Public Utilities Commission at the time of contractual arrangements are made for this project.

Electricity service would be in accordance with SCE's policy and extension rules on file with the California Public Utilities Commission at the time of contractual arrangements are made for this project. There will also be a backup generator on site.

4.19.3.4 Project Impacts

No comments specific to this topic were received in response to the Notice of Preparation. No comments were received at the scoping meeting held for the proposed Project.

6. Would the Project effect local and regional energy supplies such that additional electrical capacity is required?

Energy

The proposed WVWRP would require energy to operate beyond what the District currently requires to operate the entirety of MSWD's wastewater treatment facilities and collection systems. The Horton WWTP consumes an average of 4,224 kWh per day, and it is assumed that the WVVRF would consume a maximum of 4,224 kWh per day once in operation. Additionally, the new WVVRF is provided with standby power from a diesel fuel powered engine generator with a nominal capacity rating of 2750 kilowatts, 480-volt, 3-phase power. As each proposed phase is implemented to increase the WVVRF's treatment capacity, including the expansion of the WVVRF to treat effluent to a tertiary treatment level for recycled water purposes, the WVVRF will consume more energy; however, for the foreseeable future, the estimate above reflects the anticipated energy consumption. The proposed facility improvements would include energy efficient equipment such as system pumps and lighting to minimize energy impacts. In addition, proposed pumps would be scheduled to operate as much as possible during off-peak energy demand periods.

According to SCE², in 2016, the Palmview Circuit—which will serve the project located along Little Morongo Road—had a System Average Interruption Duration Index (SAIDI) rating of 1150.0 (mainly due to equipment failure), a System Average Interruption Frequency Index (SAIFI) rating of 4.0, and a Momentary Average Interruption Frequency Index (MAIFI) rating of 2.0. The aforementioned acronyms are reliability metrics: SAIDI stands for "The cumulative amount of time the average customer is interrupted by Sustained Outages (lasting longer than 5 minutes) each year"; SAIFI stands for "The number of times the average customer is interrupted by Sustained Outages (lasting longer than 5 minutes) each year"; and, MAIFI stands for "The number of times the average customer is interrupted by Momentary Outages (lasting 5 minutes or less) each year." As such, on average the WVVRF can be anticipated to experience approximately 1,150 minutes of outages within one year; however, SCE is planning improvements to the utility lines along Little Morongo Road, which should improve the reliability of the electric power to the site. Furthermore, the proposed WVVRF will be equipped with back-up generators to provide power should an outage occur.

² <https://library.sce.com/content/dam/sce-doclib/public/reliability/deserthotsprings.pdf>

The WVWRF site will be served by an existing power line located along Little Morongo Road. According to SCE's website³, SCE is committed to delivering power reliably and to meet demand; SCE is expanding and upgrading our 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 would have ample power supply to serve the project without the need for additional electrical capacity.

Natural Gas

The proposed WVWRF is not anticipated to require any natural gas connections to support the operations of the new wastewater treatment facilities. Therefore, no new or expanded natural gas supply is required to support the project and no impacts are anticipated to occur as a result of Program implementation.

4.19.3.5 Avoidance, Minimization and Mitigation Measures

No mitigation measures are required to minimize Program-related impacts. The proposed WVWRP is anticipated to have a less than significant impact on electrical and natural gas resources.

4.19.3.6 Cumulative Impacts

MSWD's proposed WVWRP would contribute to the cumulative use of energy and by other agencies within the greater Coachella Valley Region. The region is anticipating significant population growth and associated housing, commercial, and industrial developments that would cumulatively increase the demand for energy. While WVWRP aims at reducing overall energy consumption for wastewater treatment and sewage conveyance, it would increase the energy demand required to operate the proposed pipelines, and the new WVWRF. Therefore, the proposed Program's contribution to energy consumption would be cumulatively considerable, and thus a potentially significant impact.

4.19.3.7 Unavoidable Significant Adverse Impacts

With adherence to and implementation of the above mitigation measures and those referenced in the Section 4.4 Air Quality, General Plan policies, SCE programs, and existing regulations, the proposed Project's potential electric and natural gas impacts can be controlled and will be reduced below a level of significance.

4.19.4 Solid Waste

The City of Desert Hot Springs is served by Desert Valley Disposal Inc (DVD) for waste collection (recycling, green waste, and solid waste), including complete residential, commercial, and roll-off trash disposal. The California Department of Resources Recycling and Recovery (CalRecycle) maintains a Solid Waste Information System (SWIS) that lists disposal sites in Riverside County by disposal facility activity, regulatory status, and operational status. According to CalRecycle, there are two Landfills located within about 35 miles of the Program footprint, the Lamb Canyon Sanitary Landfill, which about 30 miles west of the project area, and the Landers Sanitary Landfill is located about 34 miles north of the project area.

³ <https://www.sce.com/about-us/reliability/meeting-demand>

If the project is implemented as proposed, it will result in development of a wastewater treatment plant that will generate minimal waste that will be collected by the DVD on a weekly basis. During construction, construction waste will be hauled to the nearest landfill in 15 CY trucks on an as need basis. The potential significance of this increase in generation and demand for solid waste disposal capacity is evaluated in the following text and any mitigation measures that need to be incorporated to reduce or control impacts to a less than significant impact level are identified for implementation.

4.19.4.1 Environmental Setting

Landers Sanitary Landfill

The Landers Sanitary Landfill is located at 59200 Winters Road, Landers, CA 92285, and is a permitted solid waste landfill that has a maximum permitted capacity of 13,983,500 cubic yards (CY), with a remaining capacity of 11,148,100 CY. The Landfill has a maximum permitted throughput of 1,200 tons per day and is operated by the County of San Bernardino Solid Waste Management Division.

Lamb Canyon Sanitary Landfill

The Lamb Canyon Sanitary Landfill is located at 16411 State Hwy 79, Beaumont, CA 92223, and is a permitted solid waste landfill that has a maximum permitted capacity of 38,935,653 CY, with a remaining capacity of 19,242,950 CY. The Landfill has a maximum permitted throughput of 5,000 tons per day and is operated by the County of Riverside—Department of Environmental Health.

MSWD currently is under contract with Western Express, which is based in Arizona. The Horton WWTP currently generates about 300 wet tons of biosolids per month, based on an average daily flow of 1.85 MGD. The proposed WVWRF is anticipated to, on opening day, generate far fewer tons of biosolids than the Horton WWTP, since it is anticipated that it will initially have an average daily flow of 0.29 MGD, while in Year 9, it is anticipated that the average daily flow will increase to 1.2 MDG. Using the model of 300 wet tons of biosolids per month for every 1.85 MGD, it is anticipated that the proposed WVWRF would generate about 47.03 wet tons of biosolids per month in Year 1, and about 194.59 wet tons of biosolids per month in Year 7. At the “build out” capacity, the WVWRF would treat 20 MGD of effluent, and would generate 3,243.24 wet tons of biosolids per month. Utilizing the Environmental Protection Agency’s *Estimating 2003 Building-Related Construction and Demolition Materials Amounts* report from March 2009⁴, the table below (Table 4.19-9) estimates the construction related solid waste generation for the proposed WVWRP.

⁴ <https://www.epa.gov/sites/production/files/2017-09/documents/estimating2003buildingrelatedcanddmaterialsamounts.pdf>

**Table 4.19-9
ESTIMATED CONSTRUCTION RELATED SOLID WASTE GENERATION**

| Proposed Program Component | Size (SF) or (CY) | Generation Factor (lbs per SF) | Total Construction Waste Generated (tons) |
|---|--|--|---|
| WVWRF | 1.5 MGD SBR Plant = ~41,625 SF Electric Building Room = ~4,132 SF | 6.94 | 158.8 |
| TOTAL PROJECTED CONSTRUCTION WASTE | | | 158.8 |
| Disposal Facility | | Disposal Capacity (tons/year) ¹ | Percent of Yearly Intake ¹ |
| Landers Sanitary Landfill | | 1,460,000 | 0.011 |
| Lamb Canyon Sanitary Landfill | | 438,000 | 0.036 |
| TOTAL | | 1,898,000 | 0.008 |

¹ Daily Disposal capacity multiplied by 365 days per year (Source: CalRecycle)
Source: EPA, *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*, March 2009

**Table 4.19-10
ESTIMATED CONSTRUCTION RELATED SOLID WASTE GENERATION
FUTURE COMPONENTS OF THE PROGRAM**

| Proposed Program Component | Size (SF) | Generation Factor (lbs per SF) | Total Construction Waste Generated (tons) |
|---|---|--|---|
| WVWRF (Future Planned Facilities) | Future Headworks = ~100,000 SF Future Process Tanks = ~100,000 SF Future Anaerobic Digesters = ~100,000 SF Future Tanks = ~7,835 SF x 8 = 59,080 | 6.94 | 1246.0 |
| TOTAL PROJECTED CONSTRUCTION WASTE | | | 1,246.0 |
| Disposal Facility | | Disposal Capacity (tons/year) ³ | Percent of Yearly Intake ³ |
| Landers Sanitary Landfill | | 1,460,000 | 0.085 |
| Lamb Canyon Sanitary Landfill | | 438,000 | 0.284 |
| TOTAL | | 1,898,000 | 0.066 |

¹ Daily Disposal capacity multiplied by 365 days per year (Source: CalRecycle)
Source: EPA, *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*, March 2009

CalRecycle estimates solid waste generation rates based on previous environmental documents on their website⁵ for public/institutional uses, which generally fits the proposed WVWRF use. For public/institutional uses, the estimated solid waste generation rate is 0.007 pounds per square foot per day (lb/SF/day). Utilizing these solid waste generation rates, the approximately 45,757 SF WVWRF would generate approximately 320.3 lbs/day or 58.45 tons/year.

4.19.4.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

⁵ <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>

- Would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Would not comply with federal, state, and local statutes and regulations related to solid waste.

No comments specific to this topic were received in response to the Notice of Preparation. No comments were received at the scoping meeting held for the proposed Project

Federal

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) (40 CFR, Part 258 Subtitle D) establishes minimum location standards for siting municipal solid waste landfills. In addition, because California laws and regulations governing the approval of solid waste landfills meet the requirements of Subtitle D, the U.S. EPA has delegated the enforcement responsibility to the State of California.

Title 40 of the Code of Federal Regulations Part 503

The federal biosolids regulations are contained in Title 40 of the Code of Federal Regulations Part 503 (40 CFR Part 503) as Standards for the Use or Disposal of Sewage Sludge. Known as the Part 503 Rule, or Part 503, these regulations govern the use and disposal of biosolids. Part 503 established requirements for the final use or disposal of biosolids when biosolids are:

- Applied to land to condition the soil or fertilize crops or other vegetation;
- Placed on a surface disposal site for final disposal; or
- Fired in a biosolids incinerator (USEPA, 1994).

Part 503 permits are issued by the USEPA and are required for all biosolids generators. Part 503 requirements can be incorporated into the NPDES permits that also are issued to publicly-owned treatment works.

State and Local

California Department of Resources Recycling and Recovery (CalRecycle), Formerly California Integrated Waste Management Board (CIWMB)

CalRecycle is the State agency designated to oversee, manage, and track California's 76 million tons of waste generated each year. It is one of the six agencies under the umbrella of the California Environmental Protection Agency. CalRecycle develops laws and regulations to control and manage waste, for which enforcement authority is typically delegated to the local government. CalRecycle works jointly with local government to implement regulations and fund programs.

The Integrated Waste Management Act of 1989 (Public Resources Code [PRC] 40050 et seq. or Assembly Bill [AB] 939, codified in PRC 40000), administered by CalRecycle, requires all local and county governments to adopt a Source Reduction and Recycling Element to identify means of reducing the amount of solid waste sent to landfills. This law set reduction targets at 25 percent by the year 1995 and 50 percent by the year 2000. To assist local jurisdictions in achieving these targets, the California Solid Waste Reuse and Recycling Access Act of 1991 requires all new developments to include adequate, accessible, and convenient areas for collecting and loading recyclable and green waste materials.

California Integrated Waste Management Act of 1989 (AB 939)

The California Integrated Waste Management Act of 1989 (AB 939) redefined solid waste management in terms of both objectives and planning responsibilities for local jurisdictions and the state. The act was adopted in an effort to reduce the volume and toxicity of solid waste that is landfilled and incinerated by requiring local governments to prepare and implement plans to improve the management of waste resources. AB 939 required each of the cities and unincorporated portions of the counties to divert a minimum of 25 percent of the solid waste landfilled by 1995 and 50% by the year 2000. To attain goals for reductions in disposal, AB 939 established a planning hierarchy utilizing new integrated solid waste management practices. These practices include source reduction, recycling and composting, and environmentally safe landfill disposal and transformation.

California Solid Waste Reuse and Recycling Act of 1991 (AB 1327)

Other state statutes pertaining to solid waste include compliance with the California Solid Waste Reuse and Recycling Act of 1991 (AB 1327), which requires the local jurisdiction to require adequate areas for collecting and loading recyclable materials within a development project for commercial, institutional, marina, and residential buildings with 5 units or more. To meet this state requirement, Riverside County Waste Management Department requires that, prior to construction of any commercial or industrial facilities, clearance from the Waste Management Department is needed to verify compliance with AB 1327 in terms of installation of recycling access areas at these facilities.

Countywide Integrated Waste Management Plan

The Countywide Integrated Waste Management Plan (CIWMP) was prepared in accordance with state requirements as stipulated in AB 939. The CIWMP is comprised of the Countywide Summary Plan; the Countywide Siting Element; and the Source Reduction and Recycling Elements, Household Hazardous Waste Elements, and Non-disposal Facility Elements for Riverside County and each of the cities in Riverside County. The Riverside County Waste Management Department administers recycling programs available to County residents that are normally advertised through mass media, such as newspapers, radio, television, and billboards.

California's Green Building Standards Code (CALGreen)

Effective Jan. 1, 2011, California's Green Building Standards Code (CALGreen) requires the diversion of at least 50 percent of the construction waste generated during most "new construction" projects ([CALGreen](#) Sections 4.408 and 5.408). Subsequent amendments have expanded upon what types of construction are covered. In all jurisdictions, including those without a Construction and Debris (C&D) ordinance requiring the diversion of 50 percent of construction waste, the owners/builder of construction projects within the covered occupancies are be required to divert 50 percent of the construction waste materials generated during the project. The 50 percent C&D diversion rate can be met through three methods: 1) develop and submit a waste management plan to the jurisdiction's enforcement agency which identifies materials and facilities to be used and document diversion, 2) use a waste management company, approved by the enforcing agency, that can document 50 percent diversion, or 3) use the disposal reduction alternative, as appropriate for the type of project. If the waste management plan option is used, the plan should be developed before construction begins, and project managers should use the project's planning phase to estimate materials that will be generated and identify diversion strategies for those materials. All covered projects should be able to divert 50 percent non-hazardous waste.

CALGreen code 5.408.4 Excavated Soil and Land Clearing Debris requires that 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed.

City of Desert Hot Springs General Plan Policies

Water, Sewer, and Utilities Element: Policy 12

The City shall proactively participate in the regional disposal of solid waste and the reduction of the waste stream to landfills.

4.19.4.3 Project Impacts

7. Would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?

Construction Waste

The solid waste generated during construction of the proposed WVWRF and conveyance pipeline would mainly consist of general construction debris, building material wrapping, worker personal waste, and excavated soils. The proposed project consists of the construction of the WVWRF on a mostly vacant site with the exception of a well that is located at the northeast corner of the site. The WVWRF site consists of undeveloped desert land characteristic of Desert Hot Springs and Coachella Valley with scattered rocks and vegetation. The proposed sewage conveyance pipeline will be constructed within existing roadways and throughways, which will be repaved or recompacted once the pipeline has been installed.

According to the 2008 Statewide Waste Characterization Study, referenced on the California Department of Resources Recycling and Recovery (CalRecycle) website, C&D materials account for 29 percent of the waste stream. Many of these materials can be reused or recycled, thus prolonging our supply of natural resources and potentially saving money in the process. The Study found that the 10 most prevalent material types of the commercial self-hauled waste stream by weight were lumber, asphalt roofing, gypsum board, and other ferrous metal that are readily recyclable and, together, account for about 39 percent of this waste stream.

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 Program.

Based on the fact that no demolition is 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 areas⁶ 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

⁶ http://cms.sbcounty.gov/portals/50/solidwaste/CandD_Recycling_Guide.pdf

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 Program. 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 Phase 1 of the WVWRP (158.8 tons); implementation of the overall program, which will eventually expand the capacity of the proposed WVVRF, would generate 1,246.0 tons of C&D material. Further, these landfills have adequate permitted remaining capacity of 30,391,050 CY.

The development of three (3) 242,000 SF infiltration basins during Phase 1 of the WVWRP, and the development of the three (3) additional 242,000 SF infiltration basins that are part of future Phases of the WVWRP, would each require extensive excavation to develop each basin. MSWD intends to balance the site such that all excavated material would be reused on site. Therefore, the development of the infiltration basins as part of Phase 1 and as part of future phases would not generate any additional solid waste requiring hauling to landfills or construction material collection facilities.

Installation of the sewage conveyance pipeline would result in construction waste from unearthing the asphalt in the amount of about 400 CY, as well as other materials necessary to create the trench required to install the proposed conveyance pipeline within paved and unpaved road- and through-ways. To further reduce potential impacts to solid waste facilities due to the large scale of the materials that may require disposal or recycling, mitigation will be implemented to ensure that C&D materials that are capable of recycling are recycled.

Based on the available above construction waste generation rates provided in Table 4.19-9 and 4.19-10, the proposed Project would generate less than 1% of the maximum daily landfill capacity of either the Landers Landfill or the Lamb Canyon Landfill. Additionally, Public Resources Code 41780 requires every city and county to divert from landfills at least 50% of the waste generated within their jurisdiction. Because the Project will be regulated by waste reduction and diversion from landfill programs the construction of the Phases of the proposed Program would not result in a substantial increase in demand for local solid waste disposal facilities and regional landfill capacity.

Operational Waste

Operation the proposed WVVRF would generate additional biosolids as a byproduct of the wastewater treatment process. These biosolids would be picked up by Western Express, which is based in Arizona and has an existing contract with MSWD to haul biosolids generated at the Horton WWTP. It is anticipated that Western Express has adequate capacity to handle the addition of about 47.03 wet tons of biosolids per month in Year 1. In the future, biosolids generated at the WVVRF would increase as the capacity of the facility increases as demand increases: in Year 7 the WVVRF would generate about 194.59 wet tons of biosolids per month, and at the "build out" capacity, the WVVRF would generate 3,243.24 wet tons of biosolids per month. Biosolids generated by the proposed project ultimately are hauled away are processed via Lime Stabilization, then land applied for a high yield crop.

Operation of the WVVRF is anticipated to generate approximately 320.3 lbs/day or 58.45 tons/year for the foreseeable future. It is anticipated, as shown in the discussion under environmental setting above, that nearby landfills have adequate capacity to handle waste

generated by the proposed operations. The proposed conveyance pipeline, once installed, will not generate any solid waste. Thus, the project would not exceed landfill capacity or change regional reuse opportunities. The impact to landfills would be less than significant.

8. Would not comply with federal, state, and local statutes and regulations related to solid waste?

The proposed project would comply with all city and County construction requirements during construction of the proposed facilities as described above in the regulatory setting. 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 in the Salton Sea Air Basin (SSAB). The proposed project would comply with all federal, State, and local statutes related to solid waste disposal. Therefore, the proposed project would result in less than significant construction impacts.

The City and City Sphere of Influence area in which the project would be located are required to comply with the California Integrated Waste Management Act of 1989, requiring diversion of solid waste from landfills through reuse and recycling. The project would be required to recycle during its operation. Project impacts related to potential noncompliance with solid waste statutes and regulations would be less than significant.

4.19.4.4 Avoidance, Minimization and Mitigation Measures

Impacts associated with solid waste and landfill capacity were found to be less than significant without mitigation measures incorporated. However, to assist the City of Desert Hot Springs to comply with State law in diverting solid waste from landfills, and reduce other impacts to traffic, air, noise and GHG emissions, the following mitigation measures will be applied to the proposed Project.

- 4.19.4-1** *The contract with the contractors shall include the requirement that all materials that can feasibly 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.*

4.19.4.5 Cumulative Impacts

Project impacts to landfill capacity from construction and demolition debris were found to be less than significant based on the information and analysis provided above. Mitigation measures address construction debris recycling and reuse to achieve a reduction in waste beyond the State requirement of a 50 percent reduction by weight. Implementation of this measure would reduce the construction waste from the proposed Project at a higher level than required by the State. Therefore, because the proposed Project will exceed those requirements with implementation of mitigation measures outlined above, the project increment of construction-related solid waste for cumulative projects in the area will be less than significant. Compared to landfill capacity, the project increment will represent less than 0.1 percent of total annual permitted landfill capacity during construction. Cumulative impacts to landfill capacity will be

less than significant due to the project construction debris representing a less than substantial cumulative increment with mitigation.

The proposed Project would contribute approximately 58.45 tons of solid waste per year. If all solid waste from the project went to one landfill or the other, the solid waste generated by the proposed Project would contribute 0.004 percent of the Landers Sanitary Landfill yearly capacity, or 0.013 percent of the Lamb Canyon Sanitary Landfill yearly capacity. Based on the small contribution of the proposed Project to the landfill capacity, this Project, even in conjunction with other projects within the area, will not contribute to cumulatively significant impacts to landfill capacity such that all landfills exceed their capacity. As noted above, the proposed Project's contribution to cumulative demand for landfill capacity is less than 0.1 percent of annual capacity landfill during both construction and future build-out of the project. Furthermore, the biosolids will be hauled away from the new WVWRF after processing via Lime Stabilization, and are then land applied for a high yield crop. Therefore, due to available capacity and implementation of the above mitigation measures, which provide for recycling on site to reduce project operational waste, cumulative impacts to the existing landfills resulting from waste generated by the project during operation are considered less than significant.

4.19.4.6 Unavoidable Significant Adverse Impacts

Project impacts to landfill capacity from construction and demolition debris were found to be less than significant without mitigation. With the implementation of the mitigation measures provided above, project-specific impacts will remain less than significant. Project impacts related to operational solid waste were also found to be less than significant without mitigation. Based on the facts and findings presented in the above analysis, the proposed Project will not cause unavoidable significant adverse impacts to City's solid waste management system.

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FIGURE 4.19-1
Mission Springs Water District Boundary Map

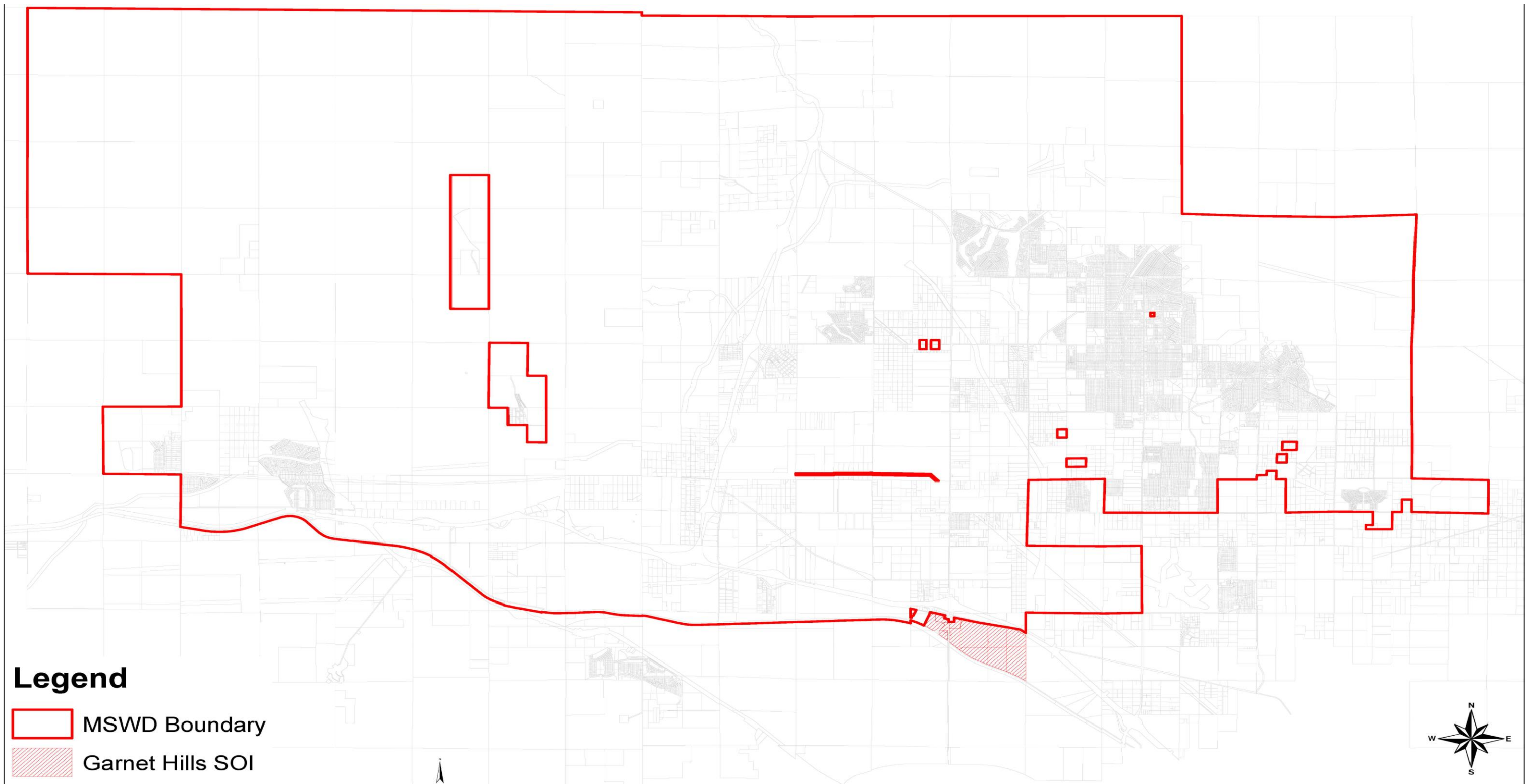
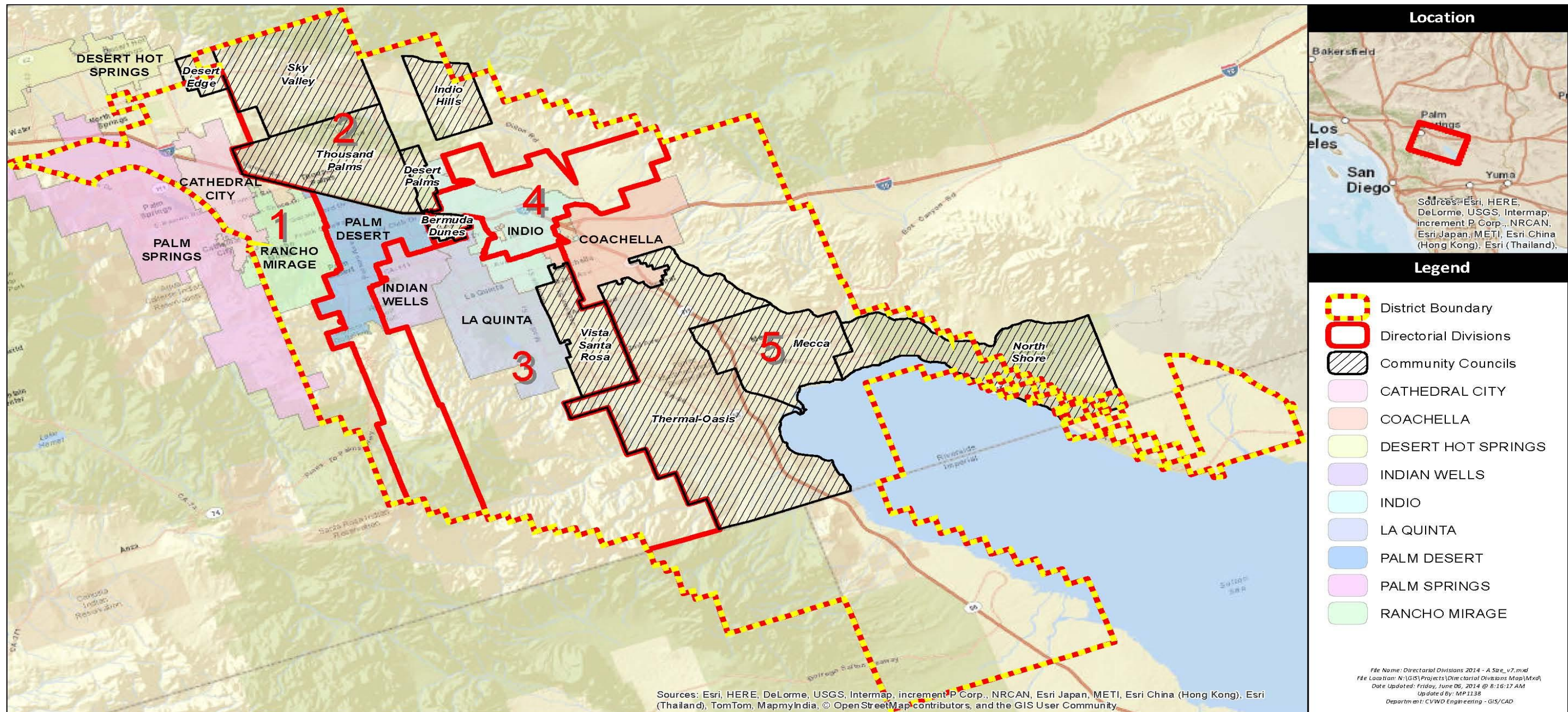
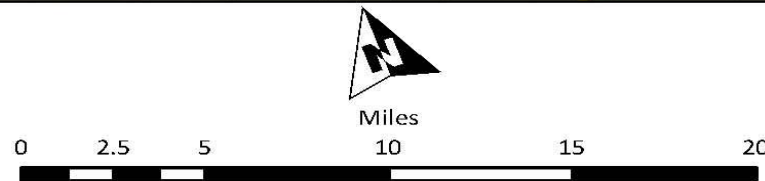


FIGURE 4.19-2
Coachella Valley Water District Boundary Map



Coachella Valley Water District

75515 Hovley Lane East
 Palm Desert, CA 92211
www.cvwd.org
 Ph. (760) 398-2661
 Fx. (760) 568-1789



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Directorial Divisions
Coachella Valley Water District

CHAPTER 5 – ALTERNATIVES

All Chapter 5 figures are located at the end of this chapter, not immediately following their reference in the text.

5.1 INTRODUCTION

The California Environmental Quality Act (CEQA) and the State CEQA Guidelines require an evaluation of alternatives to the proposed action. The purpose of the alternatives evaluation under CEQA is to determine whether one or more feasible alternatives is capable of reducing potentially significant impacts of a preferred project to a less than significant level. The applicable text in the State CEQA Guidelines occurs in Section 15126 as follows:

Section 15126.6 (a): Alternatives to the Proposed Project. An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation.

Section 15126.6 (b) Purpose. Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly.

The project objectives are defined in Chapter 3 as follows:

The primary purpose and objectives of the proposed project are:

- The primary purpose of the proposed West Valley Water Reclamation Plant (WVWRP) is to expand the District's Groundwater Quality Protection Program (GQPP) to protect and preserve the quality of its most valuable natural resource, groundwater.
- A specific objective of the WVWRP is to improve groundwater quality by removing individual septic systems and treating wastewater for constituents of concern.
- Another specific objective is to increase the capacity at the Horton Wastewater Treatment Plant (Horton WWTP) by diverting a portion of the existing sewered areas to the proposed West Valley Water Reclamation Facility (WVWRF).
- Another specific objective is to design the WVWRP facilities in a way that will accommodate future expansions and upgrades to produce effluent to meet recycled water standards, when proposed by MSWD. Doing so will maximize future water recourses within the MSWD service area by providing a source of water that can be directly used to offset potable water demand for landscape irrigation within the District's service area.

One of the alternatives that must be evaluated in an environmental impact report (EIR) is the "no project alternative," regardless of whether it is a feasible alternative to the proposed Project, i.e., would meet the project objectives or requirements. Under this alternative, the environ-

mental impacts that would occur if the proposed Project is not approved and implemented are identified. This is a true no project alternative in that it assumes all of the components of the project remain undeveloped such that the WVVRF site remains undeveloped, the conveyance pipeline system remains undeveloped, and GQQP Area M-2 remains on septic. In addition to the no project alternative, a second alternative—in this instance, called “Alternative 3”—which proposes to convey wastewater flows within the public right-of-way through a force main on Dillon Road from the Dos Palmas Lift Station (DPLS) to Little Morongo Road and then through a gravity sewer line on Little Morongo Road from Dillon Road to the WVVRF. Flows would be pumped through the force main by the DPLS after modifications are made. Finally, a third alternative—in this instance, called the “Off-Site Infiltration Basins Alternative,” would pump treated effluent from the new WVVRF to a different site owned by MSWD that is a little over 2 miles north of the WVVRF site. This alternative would be located farther away from any of MSWD’s existing potable water wells, and would therefore have less potential to negatively impact the quality of the water MSWD extracts from its existing wells.

No other alternatives to the proposed Project are given consideration or evaluated in this chapter since no other practical or feasible alternatives have been proposed. Thus, the alternatives considered in this chapter include:

1. No Project Alternative
2. Alternative 3: Dillon Force Main and Little Morongo Trunk Sewer
3. Off-Site Infiltration Basins Alternative

The following evaluation also includes identification of an environmentally superior alternative as required by the State CEQA Guidelines. The three alternatives were developed during review of the project with MSWD and include all components of the Project. No other plausible alternatives were identified during the review process for consideration in this Program Draft EIR (DEIR).

5.1.1 CEQA Requirement

The California Supreme Court determined that examination of infeasible alternatives need not be given exhaustive evaluation. Specifically, the court case Citizens of Goleta Valley v. Board of Supervisors, 1988 the court stated:

[A] Project alternative which cannot be feasibly accomplished need not be exhaustively considered. A feasible alternative is one which can be accomplished in a successful manner within a reasonable period of time, taking into account economic, legal, social and technological factors [Citations.] Surely whether a property is owned or can reasonably be acquired by the project proponent has strong bearing on the likelihood of a project’s ultimate costs and the chances for an expeditious and successful accomplishment.

The State CEQA Guidelines, Section 15126.6(f)(1) state:

Feasibility. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is

already owned by the proponent). No one of these factors establishes a fixed limit on the scope of alternatives.

5.2 NO PROJECT

5.2.1 Overview of No Project Alternative

The No Project Alternative (NPA) is required under CEQA to evaluate the environmental effects associated with no action on the part of the Lead Agency. The NPA assumes the WVWRF site remains undeveloped, the conveyance pipeline system remains undeveloped, and GQQP Area M-2 remains on septic. This alternative evaluates the environmental impacts resulting from a hypothetical continuation of the existing land use. The WVWRF site has never been developed, as such the NPA would assume that this site will remain vacant. Additionally, the pipelines would not be installed, and as a result, Area M-2 would continue to use individual septic systems and would remain disconnected from MSWD's sewer service area.

Aesthetics

The NPA would not result in any change to the current aesthetics of the project site. The development of the WVWRP was determined to be less than significant with implementation of mitigation to ensure that the design of the WVWRF is in accordance with local design standards, and painted in a color that closely matches the surrounding setting. Aesthetic impacts from the NPA would be less than those of the proposed Project because the WVWRF site would remain unchanged, but no significant impacts would occur under either the Project or NPA scenarios.

Agricultural Resources

The NPA would retain the WVWRF property as vacant land designated for light industrial uses, while the sewage conveyance alignments would not be installed. There are no agricultural resources within the WVWRP footprint, and as such, under both the NPA and Project scenarios, no impacts would occur. Agricultural Resource impacts are equal for both the NPA and the Project.

Air Quality

Since no construction activity would occur, the NPA would not have any short-term impacts on air quality because the WVWRF site would remain vacant, and the conveyance pipeline alignment would not be installed. Also, no new long-term sources of air pollution would result from operation of the WVWRF.

Air quality emissions from construction of the WVWRP were modeled based on a worst-case scenario, and were calculated to be below emissions thresholds for all criteria pollutants. Furthermore, WVWRP construction was projected to be below LST Thresholds. Additionally, operation of the WVWRP was determined to be less than significant. Mitigation measures were identified to control fugitive dust and exhaust emissions. Overall, given that the project will generate emissions, air quality emissions from the NPA would be nonexistent and as such, less than those of the proposed project.

Biological Resources

The NPA would not result in a change to the existing biology of the project site. Based on the Biological Resources Survey, the proposed Project will not adversely impact any riparian habitat or any sensitive natural community once mitigation is implemented to ensure that the above

permits are acquired prior to construction within a jurisdictional feature. Therefore, based on this information, the NPA would have less overall impact to biological resources than the proposed Project, but neither alternative would have any significant biological resource impacts.

Cultural Resources

The NPA would not result in a change to the existing cultural resources that may exist within the project footprint. The cultural resources information presented in Subchapter 4.6 indicates the proposed Project can be implemented without significant cultural resource impacts based on implementation of mitigation measures. Therefore, based on this information, the NPA would have less overall impact to cultural resources than the proposed Project, but neither alternative would have any significant Cultural Resource impacts.

Geology and Soils

The NPA would not result in a change to the existing WVWRF site, which is currently vacant and has never been developed. The proposed Project includes a geotechnical study that identifies the Project area as susceptible to seismic and geological hazards, such as groundshaking. According to the geotechnical study summarized for the project site in Subchapter 4.7, the proposed Project development at the WVWRF site is feasible from a geotechnical standpoint with mitigation without significant impact. Furthermore, the pipeline alignment can be installed within existing road rights-of-way without significant impacts to geology and soils; mitigation is required to ensure that fail-safe measures are implemented, which will protect the proposed sewage pipeline from rupture in the event of ground rupture at the Banning Fault. No severe onsite geologic or soil-related hazards or constraints were identified that would preclude development of the site. The addition of people to the area would expose structures and humans to risk, but the effects of geologic risks can be mitigated. The NPA eliminates overall risk to structures and future employees of the WVWRF, but neither alternative would have any significant Geology and Soils impacts.

Greenhouse Gas / Climate Change

Since no construction activity would occur, the NPA would not have any short-term impacts on Greenhouse Gas (GHG) emissions, particularly given that the WVWRF site has not experienced any previous development. For the development of the WVWRP, GHG impacts from construction are considered individually less than significant. According to the evaluation in Subchapter 4.8, the proposed project would not exceed the screening threshold of 3,000 Metric Tons (MT) for CO₂(e) GHG emissions. Overall, GHG emissions from the NPA would be substantially less than those of the proposed Project but neither alternative would have any significant GHG emission impacts.

Hazards and Hazardous Materials

Under the NPA, the WVWRF site would remain vacant, as it historically has been, and the roadways within which the pipelines will be installed would remain unchanged. Under the NPA, there would be no potential for a release of or the potential to encounter hazardous materials. According to the evaluation in Subchapter 4.9, the proposed Project will change the use on the WVWRF site, but it will not create an adverse impact regarding hazards and hazardous material issues. However, specific mitigation measures have been identified to reduce these potential project specific and cumulative (direct and indirect) effects to a less than significant impact level for hazards and hazardous material issues. Therefore, hazards and hazardous materials impacts from the NPA would be substantially less than those of the proposed Project but neither alternative would have any significant Hazard and Hazardous Material impacts.

Hydrology and Water Quality

Under the NPA, the WVWRF site would remain vacant, and the wastewater treatment plant would not be constructed. Additionally, the Area M-2 would not be connected to MSWD's sewage collection system, and the septic tanks within that region would remain in use. The pollutants (particularly nitrate) that might continue to contribute to groundwater quality degradation over time from the continued use of the septic systems in this area, would ultimately have a greater impact to the underlying groundwater. The soils underlying the Area M-2 are less efficient at removing pollutants from the septic tank effluent over time than the proposed WVWRF would be at removing pollutants continuously. Furthermore, the effluent from the WVWRF that would ultimately make its way into the groundwater table would be treated to contain less pollutants than those that have become a problem within MSWD's service area as a result of exacerbated pollutant concentrations from septic tanks. The proposed project requires mitigation to prevent significant impacts over the long-term to Well 33, which is located within the WVWRF site. Ultimately, hydrology/water quality resource impacts from the NPA could be greater than that of the proposed Project, and it is possible that, over time, a significant degradation in water quality under the NPA.

Land Use / Planning

Under the NPA, the WVWRF site would remain a vacant parcel of land designated for industrial use. The development of the proposed WVWRP would fall under California Government Code Section 53091, which specifies that water and wastewater supply facilities—such as those associated with the proposed project—are exempt from zoning restrictions. Ultimately, neither the proposed WVWRP nor the NPA would have a potential to impact Land Use/Planning.

Mineral Resources

The evaluation in Subchapter 4.12 concluded that the project site does not contain any mineral resources of any value to society. Based on this finding, neither implementation of the NPA or of the proposed Project has any potential to cause adverse impacts to Mineral Resources.

Noise

Since no construction activity would occur, the NPA would not generate any short- or long-term noise impacts. According to the evaluation in Subchapter 4.13, the existing noise setting of the proposed project site will be permanently altered as a result of implementation of the proposed Project. Due to the rural nature of the proposed WVWRF, noise from construction or operation of the WVWRF will be minimal due to the 1.8 mile distance separation to the closest residence. Once installed, the pipeline will be located belowground, and will not generate any noise. The Project is required to comply with the Desert Hot Springs and Riverside County noise ordinances pertaining to construction noise, and mitigation is implemented to reduce impacts from noise during construction of the WVWRP. Therefore, noise impacts from the NPA would be substantially less than those of the proposed Project, but neither alternative would have any significant Noise impacts.

Population / Housing

With the NPA, no potential would exist to increase the population beyond that which is projected for the City of Desert Hot Springs and the County of Riverside, nor would the NPA result in any shortage of housing. The WVWRP does not propose any housing, and it is not anticipated to substantially induce population growth either directly, or indirectly. However, when compared to the NPA, the WVWRP has a potential to increase the local population by as many as 20 persons, and require 20 new housing units. This is considered less than significant; ultimately,

the population and housing impacts from the NPA would be less than the impacts from the Project, but neither alternative would have any significant Population/Housing impacts.

Public Services

Under the NPA, no potential would exist to impact public services of any kind because the site would remain vacant. Ultimately, due to the limited population increase that would occur as a result of implementation of the WVWRP, the demand for public services (fire, sheriff, schools, libraries, etc.) would be minimal. The WVWRF would be fenced, and as such would limit any random trespass, and the proposed land use is not such that the potential for fire at the site would be significant. As such, given that the impact for each type of public service was determined to be less than significant, neither alternative would have a significant impact, though the NPA would result in less of an impact than would the proposed WVWRP.

Recreation

The NPA would leave the WVWRF site vacant, with no additional demand for parks, trails, and recreation facilities. Under the proposed WVWRP, no recreational facilities are proposed. The potential increase of up to 20 persons under the WVWRP would be minimal relative to the forecasted growth anticipated to occur within the City and the overall Coachella Valley in the next decades, and therefore, would not substantially increase the use of existing regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Therefore, the NPA would have no adverse impact on existing recreational facilities, and as such recreation resources impacts from the NPA when compared to the proposed Project would be lesser. Neither alternative would result in a significant adverse impact to existing Recreation Resources.

Transportation / Traffic

The NPA would not increase site-generated traffic above current levels and therefore, would not contribute to the need for area-wide off-site road improvements. According to Subchapter 4.17, implementing the Project will generate about 122 employee trips per day for 165 days to 18 months and 45 truck trips per day for 165 days to 18 months during construction. Construction is not anticipated to result in a doubling of peak hour traffic, and overall is not anticipated to result in any significant traffic impacts. Construction requires mitigation to implement a congestion management plan, and to ensure that the roadways within which the pipeline will be installed are returned to their original condition. In the long-term, operation of the WVWRP will generate minimal traffic as the proposed WVWRF—20 employee roundtrips per day, and (initially) 1 roundtrip each month in support of the biosolids hauling effort, or 69 roundtrips at build out should MSWD decide to haul the biosolids off-site in the future. Ultimately, operation of the WVWRF would not generate a significant traffic impact and no operational mitigation is required. Ultimately, transportation/traffic resources impacts from the NPA would be substantially less than those of the proposed Project, though neither alternative would result in a significant adverse impact to Transportation/Traffic.

Tribal Cultural Resources

The NPA would not result in a change to the existing tribal cultural resources that may exist within the project footprint. The consultation with Agua Caliente Band of Cahuilla Indians indicated that the Tribe believes tribal cultural resources may exist within the project footprint, as such the NPA would result in no impacts to any resources should they be present. The WVWRP can be implemented without any significant impacts to tribal cultural resources with mitigation to ensure that the Agua Caliente Band of Cahuilla Indians has a tribal monitor on site during excavation activities. Therefore, based on this information, the NPA would have less overall

impact to tribal cultural resources than the proposed Project, but neither alternative would have any significant Tribal Cultural Resource impacts.

Utilities and Service Systems

Refer to Subchapter 4.19 for the detailed discussion of utilities and service systems.

Solid Waste

The NPA would not create an increase in the amount of solid waste generated on the WVWRP site. Under the proposed Project, solid wastes will increase as a result of the construction of the WVWRF and conveyance system; it is anticipated that nearby landfills have adequate capacity to handle waste generated by the proposed operations and landfills, and as such the WVWRP would not result in a significant impact to solid waste. However, the overall impacts from the WVWRP will be substantially greater than the NPA, though neither alternative would have any significant utilities — solid waste impacts.

Water and Sewer

Under the NPA, the WVWRF site would remain vacant and would not require stormwater, water or sewer services. The WVWRP proposes to install a wastewater treatment plant and associated conveyance system, the impacts of implementing this facility, as discussed throughout this document, are less than significant with mitigation incorporated in many cases. As such, the expansion of MSWD's sewage service area through the implementation of the WVWRP would be less than significant, though the NPA would be less than those of the proposed Project, neither alternative would cause a significant adverse impact to the sewage system. The WVWRP's demand for potable water was determined to be less than significant based on the projected availability of potable water MSWD's service area. Though the NPA would be less than those of the proposed Project, neither alternative would cause a significant adverse impact to the water system. Mitigation is required to ensure that all runoff is directed towards the proposed infiltration basins at the WVWRF or is otherwise contained to prevent offsite runoff, but given the anticipated availability of pervious area within the site once the WVWRF is developed, it is anticipated that impacts related to stormwater runoff will be less than significant. Similarly, because there would be no requirement for the construction of new or expanded drainage facilities to serve the proposed project, no impacts are anticipated to occur as a result of construction of the proposed sewer pipeline alignment. Therefore, though the impacts to stormwater systems from the NPA would be less than those of the proposed Project, neither alternative would cause a significant adverse impact to stormwater collection.

Natural Gas and Electricity

Under the NPA, the WVWRF site would remain vacant and would not require natural gas or electricity. The WVWRF would require connection to Southern California Edison (SCE) to operate and would require some electricity during construction activities, but no significant impacts are anticipated to occur as a result of this new connection. The WVWRP is not anticipated to require natural gas to operate. Due to the scale of the proposed Project when compared to the NPA, the electricity impacts will be greater than the NPA. Therefore, utilities — electricity impacts from the NPA would be less than those of the proposed Project, but neither alternative would cause a significant adverse impact to these utility systems.

5.2.2 Summary of No Project Alternative

With respect to the NPA, Project objectives are not attained because no development is included as a part of the NPA. There are no significant unavoidable adverse impacts that would

result from the WVWRP. The main difference between the Project and the NPA is that the Area M-2 would not be connected to MSWD's sewage collection system, and thereby, this area will continue to use septic systems to dispose of wastewater. This could potentially result in further degradation to the groundwater which underlies this area over time, especially given that the District is experiencing groundwater degradation from septic systems within its service area. Additionally, the NPA would not provide the necessary expanded wastewater treatment services required to meet the projected demands within MSWD's service area. Ultimately, none of the project objectives would be met under this alternative.

5.3 OFF-SITE INFILTRATION BASINS ALTERNATIVE

5.3.1 Overview of Off-Site Infiltration Basins Alternative

MSWD owns an 80-acre site located about 2 miles north of the proposed treatment plant that could potentially be used to locate infiltration basins. This 80-acre site is situated over the Mission Creek Groundwater Subbasin. AECOM performed preliminary geotechnical testing of the 80-acre site. Findings show that the soils at the second site have percolation rates similar to the proposed treatment plant site. The basis of design for sizing infiltration basins at the 80-acre site is expected to be the same as the basis of design for the proposed treatment plant site. The only difference is that a new effluent pumping system would be required to deliver effluent from the proposed treatment plant to the 80-acre site.

It is also assumed that the components of this Alternative would be constructed in approximately the same timeframe and the same manner as the WVWRP is proposed to be constructed. All mitigation measures identified for the proposed Project would be implemented for this alternative.

Aesthetics

The Off-site Infiltration Basin Alternative would require a bit more construction than the proposed WVWRP. Though this alternative includes a new effluent pumping system, that would require about 2 miles of additional pipeline and installation of the infiltration basins off-site. These differences would not have a substantial impact to aesthetics given that they would be installed at or below grade. The development of the WVWRP was determined to be less than significant with implementation of mitigation to ensure that the design of the WVWRF is designed in accordance with local design standards, and painted in a color that closely matches the surrounding setting. Aesthetic impacts from the Off-site Infiltration Basin Alternative would be about equal to those of the proposed Project and no significant impacts would occur under either the Project or Alternative 3 scenarios.

Agricultural Resources

The Off-site Infiltration Basin Alternative would develop the infiltration basins at an alternative location, but this location is not designated for agricultural use. There are no agricultural resources within the WVWRP footprint or the Off-site Infiltration Basin Alternative, and as such, under both the Off-site Infiltration Basin Alternative and Project scenarios, no impacts would occur. Agricultural Resource impacts are equal for both the Off-site Infiltration Basin Alternative and the Project.

Air Quality

The Off-site Infiltration Basin Alternative would require a bit more construction than the proposed WVWRP. Though this alternative includes a new effluent pumping system, that would

require about 2 miles of additional pipeline and installation of the infiltration basins off-site. The construction of the additional 2 miles of pipeline would generate air quality emissions beyond that which was projected for the proposed WVWRP, but this new scenario would not generate emissions such that a significant impact would occur. Operational emissions are anticipated to be about equal for the WVWRP and the Off-site Infiltration Basin Alternative, though it is anticipated that there would be greater employee trips to the off-site infiltration basins on a semi-regular basis, which would generate more operational emissions than installing the infiltration basins on-site. Additionally, operational emissions generated by pumping activities required to transport effluent to the off-site infiltration basins would be greater than that of the proposed project. Under this alternative, neither construction nor operational emissions would differ greatly from the WVWRP such that significant impact would occur. Overall, air quality emissions from the Off-site Infiltration Basin Alternative would be slightly greater than those generated by the proposed Project, but neither alternative would have any significant Air Quality impacts.

Biological Resources

The Off-site Infiltration Basin Alternative the WVWRP in effectively the same locations as the preferred alternative, though this Alternative would construct off-site infiltration basins at a location north of the project site. The entirety of the project area has been surveyed for biological resources; however, the off-site infiltration basin site has not been surveyed for biological resources, and as such it is unknown whether significant biological resources exist on site, and whether mitigation is available to reduce impacts to such resources. Therefore, the Off-Site Infiltration Basin Alternative would have an unknown potential for significant impacts to biological resources, which would be greater than the impacts identified for the Project as proposed.

Cultural Resources

The Off-site Infiltration Basin Alternative would require construction off-site, at a site that has not been analyzed for cultural resources. The cultural resources information presented in Subchapter 4.6 indicates the proposed Project can be implemented without significant cultural resource impacts based on implementation of mitigation measures. It is assumed that these mitigation measure would be implemented under this alternative, but it is not known if any cultural resources of importance exist at this off-site location, or within the pipeline alignment required for the effluent generated at the site to be transported to this location. Therefore, based on this information, the proposed Project would have less potential to impact any significant cultural resources, while the Off-site Infiltration Basin Alternative would have unknown potential to significantly impact cultural resources of importance, as such, the proposed Project would have less of an impact to Cultural Resources than the Off-site Infiltration Basin Alternative.

Geology and Soils

The Off-site Infiltration Basin Alternative would have a slightly different footprint for construction due to the development of the off-site infiltration basins. The proposed Project includes a geotechnical study that identifies the Project area as susceptible to seismic and geological hazards, such as groundshaking. According to the geotechnical study summarized for the project site in Subchapter 4.7, the proposed Project development at the WVWRF site is feasible from a geotechnical standpoint with mitigation. The geotechnical study analyzed the off-site infiltration basin site and found the development of this site to be feasible with no significant impacts. The pipeline alignment—which would be developed under either the Project or the Off-site Infiltration Basin Alternative—can be installed within existing road rights-of-way without significant impacts to geology and soils; mitigation is required to ensure that fail-safe measures

(i.e. an emergency shut off valve shall) will protect the proposed sewage pipeline from rupture in the event of ground rupture at the Banning Fault. Because the Desert Hot Springs area contains several active faults, it is possible No severe onsite geologic or soil-related hazards or constraints were identified that would preclude development of either site. The addition of people to the area would expose structures and humans to risk, but the nature of geologic risks can be mitigated. As such, given that Off-site Infiltration Basin Alternative and the proposed Project have a similar impact, the overall risk to structures and future employees of the Project are equal, and neither alternative would have any significant Geology and Soils impacts.

Greenhouse Gas / Climate Change

The Off-site Infiltration Basin Alternative would require a bit more construction than the proposed WVWRP. Though this alternative includes a new effluent pumping system that would require about 2 miles of additional pipeline and installation of the infiltration basins off-site. The construction of the additional 2 miles of pipeline would generate additional GHG emissions beyond that which was projected for the proposed WVWRP, but this new scenario would not generate emissions such that a significant impact would occur. Operational emissions are anticipated to be about equal for the WVWRP and the Off-site Infiltration Basin Alternative, though it is anticipated that there would be greater employee trips to the off-site infiltration basins on a semi-regular basis, which would generate more operational emissions than installing the infiltration basins on-site. Under this alternative, neither construction nor operational emissions would differ greatly from the WVWRP such that significant impact would occur. Overall, GHG quality emissions from the Off-site Infiltration Basin Alternative would be slightly greater than those generated by the proposed Project, but neither alternative would have any significant GHG impacts.

Hazards and Hazardous Materials

Under the Off-site Infiltration Basin Alternative, the hazards and hazardous materials circumstances would be nearly identical to the proposed Project; however, there location at which the infiltration basins would be located is different. According to the evaluation in Subchapter 4.9, the proposed Project will change the use on the WVWRF site, but it will not create an adverse impact regarding hazards and hazardous material issues. However, specific mitigation measures have been identified to reduce these potential project specific and cumulative (direct and indirect) effects to a less than significant impact level for hazards and hazardous material issues. With implementation of these mitigation measures employed at the off-site infiltration basin site, hazards and hazardous materials impacts from the Off-site Infiltration Basin Alternative would be about the same as those of the proposed Project and neither alternative would have any significant Hazard and Hazardous Material impacts.

Hydrology and Water Quality

The Off-Site Infiltration Basin Alternative was proposed in the event that the infiltration basins at the WVWRP site would cause the water quality of Well 33—located at the WVWRF site—to degrade over time. The antidegradation analysis concluded that impacts to Well 33 would not occur for several decades, though mitigation is required to prevent a significant impact to the water quality at Well 33 from implementation of the WVWRF and infiltration basins at this location. The off-site infiltration basins would be some removed from any potable water wells within MSWDs system, comparatively—though there are 3 wells downgradient of the off-site infiltration basin site. As such, findings show that the soils at the second site have percolation rates similar to the proposed treatment plant site. The off-site infiltration basins would not be anticipated require mitigation to protect the water quality of nearby wells, though, like the preferred alternative, mitigation to ensure that specific measures are included in the Stormwater

Pollution Prevention Plan (SWPPP) would still be required. Ultimately, Hydrology/Water Quality impacts from the Off-Site Infiltration Basin Alternative would be less than the proposed Project because the nearby wells are farther removed from the site, and as such would not be anticipated to require mitigation to prevent impacts to the water quality at the off-site location.

Land Use / Planning

The Off-Site Infiltration Basin Alternative would develop the percolation basins at an off-site location that is designated for Industrial-Medium (I-M) use within the City of Desert Hot Springs. Both the Off-Site Infiltration Basin Alternative and the Project ultimately serve the same purpose to collect sewage from specific areas and convey them to the WWRP. Under both alternatives, the WWRP site would be developed on a site designated for light industrial use. The development of the various components of the WWRP fall under California Government Code Section 53091, which specifies that water and wastewater supply facilities—such as those associated with the proposed project—are exempt from zoning restrictions. Ultimately, neither the proposed WWRP nor the Off-Site Infiltration Basin Alternative would have a potential to impact Land Use/Planning.

Mineral Resources

The evaluation in Subchapter 4.12 concluded that the WWRP site does not contain any mineral resources of any value to society. The City of Desert Hot Springs General Plan states the following on Page IV-46: *“Mineral deposits occurring in the region include copper, limestone, specialty sands, and tungsten. These deposits are limited to rocky outcroppings occurring in the Little San Bernardino Mountains and have not been exploited.”* Based on this information, the off-site infiltration site does not contain mineral resources as it is not located near the Little San Bernardino Mountains. Based on this finding, neither implementation of the Off-Site Infiltration Basin Alternative nor of the proposed Project has any potential to cause adverse impacts to Mineral Resources.

Noise

The Off-Site Infiltration Basin Alternative would have a slightly different footprint for construction due to the development of the off-site infiltration basins. According to the evaluation in Subchapter 4.13, the existing noise setting of the proposed project site will be permanently altered as a result of implementation of the proposed Project. Due to the rural nature of the proposed WWRP, noise from construction or operation of the WWRP will be minimal due to the 1.8 mile distance separation to the closest residence. Once installed, the pipeline will be located belowground, and will not generate any noise. The Project is required to comply with the Desert Hot Springs and Riverside County noise ordinances pertaining to construction noise, and mitigation is implemented to reduce impacts from noise during construction of the WWRP. The Off-Site Infiltration Basin Alternative would convey effluent to an off-site location; though the construction footprint would be greater in size, compliance with Desert Hot Springs and Riverside County noise ordinances pertaining to construction noise, and mitigation implemented to reduce impacts from noise during construction would ensure that no significant construction noise impacts would occur. There would be no substantial noise generating activities that would occur at the off-site infiltration basin site, and furthermore, this location is also rural with no sensitive receptors in the immediate vicinity. Therefore, Noise impacts from the Off-Site Infiltration Basin Alternative and the WWRP are effectively equal, and neither alternative would have any significant Noise impacts.

Population / Housing

The Off-Site Infiltration Basin Alternative would have the same operational scenario as the proposed Project in terms of the number of employees that would be required to operate the proposed WVWRF, though the location of employee activities would be split between the WVWRF site and occasional visits to the off-site infiltration basin site. The WVWRP does not propose any housing, and it is not anticipated to substantially induce population growth either directly, or indirectly. The WVWRP and the Off-Site Infiltration Basin Alternative both have a potential to increase the local population by as many as 20 persons, and require 20 new housing units. Construction at the off-site infiltration basin site would require an additional small temporary workforce during construction, but this would be considered less than significant; ultimately, the population and housing impacts from both the Project and from the Off-Site Infiltration Basin Alternative would be less than significant.

Public Services

The Off-Site Infiltration Basin Alternative would have the same operational scenario as the proposed Project in terms of the number of employees that would be required to operate the proposed WVWRF. Ultimately, due to the limited population increase that would occur as a result of implementation of the WVWRP, the demand for public services (fire, sheriff, schools, libraries, etc.) would be minimal; this would be the same for the Off-Site Infiltration Basin Alternative. The WVWRF would be fenced as would the off-site infiltration basin site, and as such would limit any random trespass, and the proposed land use is not such that the potential for fire at the site would be significant. As such, given that the impact for each type of public service was determined to be less than significant, neither the Project nor Off-Site Infiltration Basin Alternative scenarios would have a significant impact.

Recreation

The Off-Site Infiltration Basin Alternative would have the same operational scenario as the proposed Project in terms of the number of employees that would be required to operate the proposed WVWRF. Under both the proposed WVWRP and Alternative 3, no recreational facilities are proposed. The potential increase of 20 persons under the WVWRP would be minimal relative to the forecasted growth anticipated to occur within the City and the overall Coachella Valley in the next decades, and therefore, would not increase the use of existing regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Given that the operational scenarios for the proposed Project and Off-Site Infiltration Basin Alternative would have equal impacts under Recreation, neither scenario would have an adverse impact on existing recreational facilities.

Transportation / Traffic

The Off-Site Infiltration Basin Alternative would expand the footprint for construction of the WVWRF when compare to the WVWRP scenario by installing pipeline from the WVWRP to convey effluent to an off-site location in which infiltration basins will be installed. The effort to install the off-site infiltration basin and associated infrastructure would require a small increase in employee and construction related trips during construction, when compared to the Project, but this increase would not cause the project to have a significant impact. Additionally, the footprint of employee trips would be expanded during operation, though the number of trips would remain the same, and as such, given the remote location of the off-site infiltration basins, this change is not forecast to cause a significant impact. According to Subchapter 4.17, implementing the Project will generate about 122 employee trips per day for 165 days to 18 months and 45 truck trips per day for 165 days to 18 months during construction. Construction is not anticipated to result in a doubling of peak hour traffic, and overall is not anticipated to

result in any significant traffic impacts. Construction requires mitigation to implement a congestion management plan, and to ensure that the roadways within which the pipeline will be installed are returned to their original condition. In the long-term, operation of the WVWRP and the Off-Site Infiltration Basin Alternative would be equal in terms of trips, though, as stated above, the footprint in which the trips would take place would be slightly different. These operational scenarios would generate minimal traffic as the proposed WVWRF would require 20 employee roundtrips per day, and (initially) 1 roundtrip each month in support of the biosolids hauling effort, or 69 roundtrips at build out should MSWD decide to haul the biosolids off-site in the future. Operation of the WVWRF would not generate a significant traffic impact and no operational mitigation is required. Ultimately, Transportation/Traffic impacts from the Off-Site Infiltration Basin Alternative would be slightly greater than those of the proposed Project, though neither alternative would result in a significant adverse impact to Transportation/Traffic.

Tribal Cultural Resources

The Off-Site Infiltration Basin Alternative would expand the footprint for construction of the WVWRF when compare to the WVWRP scenario by installing pipeline from the WVWRP to convey effluent to an off-site location in which infiltration basins will be installed. The Off-site Infiltration Basin Alternative would require construction at an off-site location that has not been analyzed for tribal cultural resources. The consultation with Agua Caliente Band of Cahuilla Indians indicated that the Tribe believes tribal cultural resources may exist within the WVWRP project footprint. The WVWRP can be implemented without any significant impacts to tribal cultural resources with mitigation to ensure that the Agua Caliente Band of Cahuilla Indians has a tribal monitor on site during excavation activities. It is assumed that these mitigation measure would be implemented under this alternative, but it is not known if any tribal cultural resources of importance exist at this off-site location, or within the pipeline alignment required for the effluent generated at the site to be transported to this location. Therefore, based on this information, the proposed Project would have less potential to impact any significant tribal cultural resources, while the Off-site Infiltration Basin Alternative would have unknown potential to significantly impact tribal cultural resources of importance, as such, the proposed Project would have less of an impact to Tribal Cultural Resources than the Off-site Infiltration Basin Alternative.

Utilities and Service Systems

Refer to Subchapter 4.19 for the detailed discussion of utilities and service systems.

Solid Waste

The Off-Site Infiltration Basin Alternative would expand the footprint for construction of the WVWRF when compare to the WVWRP scenario by installing pipeline from the WVWRP to convey effluent to an off-site location in which infiltration basins will be installed. The installation of the off-site infiltration basins could result in slightly greater construction waste from the effort required to install the pipeline to convey the effluent to this off-site location; however, the WVWRP analyzed solid waste related to the installation of the infiltration basins, just at the WVWRF site. Under the proposed Project, solid wastes will increase as a result of the construction of the WVWRF and conveyance system; it is anticipated that nearby landfills have adequate capacity to handle waste generated by the proposed operations, and as such the WVWRP would not result in a significant impact to solid waste. The overall impacts from the WVWRP will be slightly less than those anticipated to be generated by the Off-Site Infiltration Basin Alternative, though neither alternative would have any significant utilities — solid waste impacts.

Water and Sewer

The Off-Site Infiltration Basin Alternative would expand the footprint for construction of the WVWRF when compared to the WVWRP scenario by installing pipeline from the WVWRP to convey effluent to an off-site location in which infiltration basins will be installed. The WVWRP and the Off-Site Infiltration Basin Alternative propose to install a wastewater treatment plant and associated conveyance system, the impacts of implementing this facility, as discussed throughout this document, are less than significant with mitigation incorporated in many cases. As such, the expansion of MSWD's sewage service area through the implementation of the WVWRP would be less than significant, and neither alternative would cause a significant adverse impact to the sewage system. The WVWRP's demand for potable water was determined to be less than significant based on the projected availability of potable water MSWD's service area; these circumstances would not change under the Off-Site Infiltration Basin Alternative, though the Off-Site Infiltration Basin Alternative may require a small amount of additional water during construction due to the expanded construction required to implement this Alternative. Neither alternative would cause a significant adverse impact to the water system. Mitigation is required to ensure that all runoff is directed towards the proposed infiltration basins at the WVWRF or is otherwise contained to prevent offsite runoff, but given the anticipated availability of pervious area within the site once the WVWRF is developed, it is anticipated that impacts related to stormwater runoff will be less than significant; these circumstances would change slightly under the Off-Site Infiltration Basin Alternative. The WVWRF would require alternative management of stormwater runoff, while the off-site infiltration basin site would manage drainage on site through the proposed infiltration system. Under the proposed WVWRP and the Off-Site Infiltration Basin Alternative, there would be no requirement for the construction of new or expanded drainage facilities beyond those proposed within each project site, and no impacts are anticipated to occur as a result of construction of the proposed sewer pipeline alignment. The impacts to stormwater systems from the Off-Site Infiltration Basin Alternative would be slightly greater than those of the proposed WVWRP because the Off-Site Infiltration Basin Alternative would require construction of additional stormwater runoff management given that the infiltration basins would not be located on site, as such, alternative would cause a significant adverse impact to stormwater collection.

Natural Gas and Electricity

The Off-Site Infiltration Basin Alternative would involve construction of off-site facilities required to operate the WVWRF. The electrical power required to pump the effluent from the WVWRF site to the off-site infiltration basins would be greater than required under the Project as proposed; however, this increase would not be substantial such that a significant impact would occur. The WVWRF and the Off-Site Infiltration Basin Alternative would require connection to Southern California Edison (SCE) to operate and would require some electricity during construction activities, but no significant impacts are anticipated to occur as a result of these new connections. Neither the Off-Site Infiltration Basin Alternative nor the WVWRP are not anticipated to require natural gas to operate. Therefore, utilities – electricity impacts from the Off-Site Infiltration Basin Alternative would be slightly greater than to those of the proposed Project, but neither alternative would cause a significant adverse impact to these utility systems.

5.3.2 Summary of the Off-Site Infiltration Basin Alternative

With respect to the development of the Off-Site Infiltration Basin Alternative when compared to the preferred alternative, nearly all of the impacts would be equal. In some cases, construction of the Off-Site Infiltration Basin Alternative would require additional construction that could intensify impacts to a small degree, none of which would result in a significant impact for any

issue. While the Off-Site Infiltration Basin Alternative is a feasible alternative to the proposed project, Alternative 4—the preferred alternative—would avoid unnecessary construction (of the pipeline to reach the off-site infiltration basin location) and unnecessary operational impacts (from the effort required to pump effluent to a location about 2 miles north of the WVWRF site). Considering that offsite infiltration basins would require additional cost for installation and operation of an effluent pump station and conveyance pipeline, and will require similar-sized basins, the proposed infiltration basins are recommended to be located at the treatment plant site. Ultimately, neither the Off-Site Infiltration Basin Alternative nor the proposed Project would result in significant impacts for any issue under CEQA.

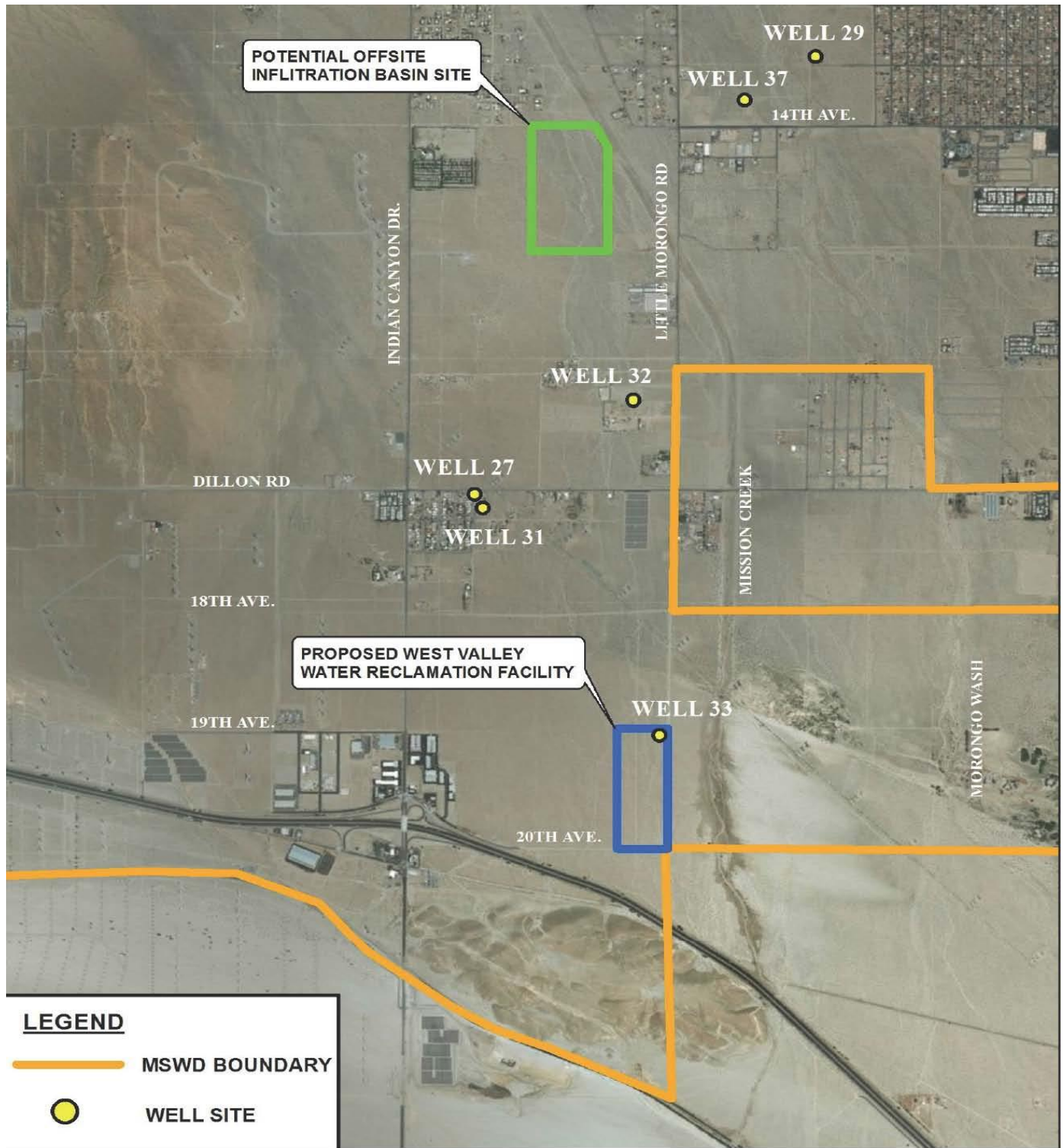
5.4 DISCUSSION OF ALTERNATIVES TO THE PROPOSED PROJECT

Of the three alternatives considered, the Off-Site Infiltration Basin Alternative has been determined to be the environmentally superior alternative. Refer to the comparison of alternatives in the matrix provided in Table 5-1 below. This is because though the NPA would have fewer environmental impacts, the potentially significant impact to groundwater quality that could occur over time from leaving the septic systems within Area M-2 in place would outweigh the impacts from any other alternative because no significant impacts are projected to occur from implementation of the WVWRP. With respect to the Off-Site Infiltration Basin Alternative, the main reason that it would be the environmentally superior alternative is that the impact to hydrology at the off-site location from the infiltration basins would require less mitigation to prevent a significant impact from occurring to the underlying water quality. Neither Alternative 3, the Off-Site Infiltration Basin Alternatives, nor the proposed WVWRP would cause a significant impact under any issue.

**Table 5-1
TABULAR COMPARISON OF PROJECT ALTERNATIVES**

| | <i>Would the Project/Alternative Result in Significant Adverse Impacts to the Resource Issues of ...?</i> | | | | Which Alternative is Environmentally Superior? |
|---------------------------------------|---|-------------------------------------|--|--|---|
| | Proposed Project | No Project Alternative (NPA) | Alternative 3: Dillon Force Main and Little Morongo Trunk Sewer | Off-Site Infiltration Basin Alternative | |
| Aesthetics | No | No | No | No | NPA |
| Agricultural | No | No | No | No | Alternatives are equal |
| Air Quality | No | No | No | No | NPA |
| Biological Resources | No | No | No | Potentially, Yes | NPA |
| Cultural Resources | No | No | No | No | NPA |
| Geology and Soils | No | No | No | No | NPA |
| Greenhouse Gas / Climate Change | No | No | No | No | NPA |
| Hazards and Hazardous Materials | No | No | No | No | NPA |
| Hydrology and Water Quality | No | Potentially, Yes | No | No | Off-Site Infiltration Basin |
| Land Use / Planning | No | No | No | No | Alternatives are equal |
| Mineral Resources | No | No | No | No | Alternatives are equal |
| Noise | Yes | No | No | No | NPA |
| Population / Housing | No | No | No | No | NPA |
| Public Services | No | No | No | No | NPA |
| Recreation | No | No | No | No | NPA |
| Transportation / Traffic | No | No | No | No | NPA |
| Utilities and Service Systems | No | No | No | No | NPA |
| <i>Would Meet Project Objectives?</i> | Yes | No | Yes | Yes | - |

FIGURE 5-1
WVWRF Potential Offsite Infiltration Basin



Source: AECOM

CHAPTER 6 – TOPICAL ISSUES

Each environmental document contains a certain amount of duplication to ensure that information is conveyed to the decision-makers and interested members of the public in an organized fashion. Chapter 4 contains a detailed discussion of environmental effects that may result from implementing the proposed Project. This includes a discussion of project specific and cumulative environmental impacts, as well as discussion of unavoidable adverse impacts for each topic evaluated in the Program Draft Environmental Impact Report (DEIR). This section of the DEIR combines three “topical issues” that are mandated in the State CEQA Guidelines Section 15126. Section 15126 states: “The subjects listed below shall be discussed...preferably in separate sections or paragraphs of the EIR.” These sections are: (c) Significant Irreversible Environmental Changes Which Would be Involved in the Proposed Project Should it be Implemented and (d) Growth-Inducing Impact of the Proposed Project. Section 15130 requires a discussion of Cumulative Impacts. Because of the importance of this topic, a summary of cumulative effects is included in this Chapter. The other major topics required in a DEIR (Significant Environmental Effects; Unavoidable Significant Environmental Effects; and Mitigation Measures) are specifically addressed in Chapter 4 of this EIR. Alternatives to the proposed Project are evaluated in Chapter 5.

6.1 GROWTH-INDUCING IMPACTS

CEQA requires a discussion of the ways in which a project could be growth inducing. (Pub. Resources Code, §21100, subd.(b)(5); CEQA Guidelines, §§15126, subd.(d), 15126.2, subd.(d)) The CEQA Guidelines identify a project as growth-inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Under CEQA, growth inducement is not considered necessarily detrimental or beneficial. (CEQA Guidelines §15126.2, subd.(d))

A project may indirectly induce growth by reducing or removing barriers to growth, or by creating a condition that attracts additional population or new economic activity. Projects that induce growth directly would include commercial or industrial development that hire new employees and residential development that provides housing. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in an area. Growth inducement may also occur if a project provides infrastructure or service capacity that accommodates growth beyond the levels currently permitted by local or regional land use plans. However, a project’s potential to induce growth does not automatically result in growth. Growth only happens when the private or public sector responds to a change in the underlying development potential of an area with capital investment.

Typically, significant growth is induced in one of three ways. In the first instance, a project developed in an isolated area may bring sufficient urban infrastructure to cause new or additional development pressure on the intervening and surrounding land. This type of induced growth leads to conversion of adjacent acreage to higher intensity uses, either unexpectedly or through accelerated development. This conversion occurs because the adjacent land becomes more suitable for development and, hence, more valuable because of the availability of the new infrastructure. This type of growth inducement is termed “leap frog” or “premature” development because it creates an island of higher intensity developed land within a larger area of lower intensity land use.

The second type of significant growth inducement is caused when development of a large-scale project, relative to the surrounding community or area, produces a “multiplier effect” resulting in substantial indirect community growth, although not necessarily adjacent to the development site or of the same type of use as the project itself. This type of stimulus to community growth is typified by the development of major destination facilities, such as Disney World near Orlando, Florida, or around military facilities, such as the Marine Corps Air Ground Combat Center, near Twentynine Palms.

A third, subtler type of significant growth inducement occurs when land use plans are established that create a potential for growth because the available land and the land uses permitted result in the attraction of new development. This type of growth inducement is also attributed to other plans developed to provide the infrastructure necessary to meet the land use objectives, or community vision, contained in the governing land use agency’s general plan. In this type of growth inducement, the ultimate vision of future growth and development within a project area is established in a city General Plan or other comprehensive land use plan. The net effect of a General Plan’s land use designations is to establish a set of expectations regarding future land use and growth that may or may not occur in the future, depending upon the actual demand and other circumstances when development is proposed. Thus, a plan may assign an area 100,000 square feet of commercial space, but if actual development does not ultimately generate demand for this much retail square footage, it will never be established.

Under present circumstances the proposed West Valley Water Reclamation Facility (WVWRF) site is currently vacant, though the northeast corner contains an existing MSWD well—Well 33. Surrounding land uses are generally light industrial, though to the east of the project site, the land use includes Open Space-Water to accommodate Mission Creek. Most of the development surrounding this site is vacant, with the exception of an MSWD operated solar farm to the north of the project site.

The primary objective of the proposed project (the West Valley Water Reclamation Program or WVWRP) is to protect and preserve groundwater within the MSWD service area; to install a wastewater treatment plant (the WVWRF) that would increase MSWD’s wastewater treatment capacity; to improve groundwater quality by removing individual septic systems and treating wastewater for constituents of concern; and, to design the WVWRP facilities in a way that will accommodate future expansions and upgrades to produce effluent to meet recycled water standards to provide recycled water to customers within the MSWD service area in the future. The proposed project would expand the wastewater treatment infrastructure in MSWD’s service area, which is anticipated to meet projected growth within this area.

As stated above, the first type of significant growth occurs when a project developed in an isolated area may bring sufficient urban infrastructure to cause new or additional development pressure on the intervening and surrounding land. The City of Desert Hot Springs is in a relatively urbanized area. The population in 2016 was 29,048.¹ Final Growth Forecast estimates that the population of the City of Desert Hot Springs will increase from 27,800 people in 2012 to 58,900 in 2040. It further estimates that households will increase from 9,100 in 2012 to 21,900 in 2040. Employment was estimated as 3,700 in 2012 and forecast to increase to 12,900 in 2040. Given the data presented above, Desert Hot Springs is not located in an isolated area. However, the proposed WVWRF will be located in a sparsely developed area. MSWD serves the existing population of Desert Hot Springs, which, at 29,048 persons in 2016, is not a

¹ <https://www.scag.ca.gov/Documents/DesertHotSprings.pdf>

substantially populated City. The expansion of MSWD's service area would bring infrastructure to non-sewered areas within the Desert Hot Springs area and surrounding community, though it is not forecast to cause a substantial growth inducement. The areas that would be sewerage or connected to the new WVWRF are developed, or have been approved for development. As stated above, the City of Desert Hot Springs has long projected that the City's population would grow, and in order to accommodate the additional residents, the wastewater treatment system must be expanded. Though the provision of expanded wastewater treatment would limit the preclusions to future development, it is not anticipated to be an impetus to extensive growth within the area. Thus, the proposed project is not forecast to cause a significant impact as a result of this type of growth inducement.

As previously stated, a second type of significant growth inducement is caused when development of a large-scale project, relative to the surrounding community or area, produces a "multiplier effect" resulting in substantial indirect community growth. The WVWRF will employ an estimated 20 persons. It is unknown how many of the future employees of the WVWRF would be drawn from the surrounding community, but should the entire 20 future employees be new citizens of the City of Desert Hot Springs or surrounding communities the increase in population as a result of implementation of the proposed project does not have a potential to indirectly induce growth. According to the City of Desert Hot Springs General Plan—and also stated above—Final Growth Forecast estimates that the population of the City of Desert Hot Springs will increase from 27,800 people in 2012 to 58,900 in 2040. The projected population within the City of Desert Hot Springs has not yet been reached; given the approximately 19,850-person gap between the 2016 population and the projected build out population, the proposed project may induce population growth, but the proposed project will not induce substantial population growth that exceeds either local or regional projections.

A third type of significant growth inducement occurs when land use plans are established that create a potential for growth because the available land and the land uses permitted result in the attraction of new development. The project does not propose any land use plans or changes to existing land use plans within the City of Desert Hot Springs or the County of Riverside. The WVWRF would be developed on a site designated for Light Industrial use. The development of the various components of the WVWRP fall under California Government Code Section 53091, which specifies that water and wastewater supply facilities—such as those associated with the proposed project—are exempt from zoning restrictions. As such, the project would not be growth inducing as a result of the establishment of a new or change in an existing land use plan.

In summary, implementation of the proposed Project **would not** result in a significant growth inducing impact through the extension of significant urban infrastructure to an isolated area. The proposed Project **would not** indirectly induce substantial population growth through the creation of jobs. The proposed Project **would not** be a new large project with the potential to create a "multiplier effect" that has not already been provided for in the local land use planning documents and that could induce growth beyond that anticipated in those planning documents. Finally, the proposed Project **would not** create or change a land use plan that might cause a potential for growth because the available land and the land uses permitted result in the attraction of new development. Though the project would create job growth, the amount in which the project would indirectly induce growth **is not considered to be significant**.

6.2 CUMULATIVE IMPACTS

The intent of a cumulative impact evaluation is to provide the public and decision-makers with an understanding of a given project's contribution to area-wide or community environmental impacts when added to other development occurring in the region. Typically, cumulative impacts are discussed in relation to a list of past, present, and reasonably anticipated projects or in relation to broad growth projections and related area-wide impacts identified in general (City-wide General Plan) or regional plans (such as, SCAQMD's Air Quality Management Plan, AQMP) refer to Section 15130(b) of the State CEQA Guidelines). For the proposed Project, cumulative impacts are evaluated in the context of both types of cumulative impact forecasts. The cumulative impact projections were made using regional planning documents and site-specific technical studies. Cumulative impacts are discussed in each issue subchapter of Chapter 4 in this document. A discussion of cumulative impacts can be found at the end of each subchapter for each topic discussed in Chapter 4. No cumulatively considerable impacts for any topic were determined to result from implementation of the WVWRP. Please refer to each individual subchapter of Chapter 4 for an expanded discussion of cumulative impacts.

6.3 SIGNIFICANT IRREVERSIBLE AND/OR UNAVOIDABLE ENVIRONMENTAL IMPACTS

In considering the topic of "Significant Irreversible and/or Unavoidable Environmental Impacts," it is important to define the terminology that is used in making impact forecasts. For example, an "unavoidable significant adverse environmental impact" is an effect of a proposed project that cannot be avoided or reduced below some specific threshold of significance by any available or feasible mitigation measure or feasible alternative to that project. These impacts are discussed in the subchapter text for each environmental issue in Chapter 4 of this document. No unavoidable significant impacts have been identified for the proposed Project.

An irreversible impact is an impact that once experienced, cannot be changed or modified, by any means. Irreversible impacts have more nuance than do unavoidable impacts. For example, if a project results in the death of the last individual of an endangered species, this impact cannot be reversed (at least with technology available at this time). At least for the present, we cannot make any more individuals of the species. On the other hand, if air emissions from a project exceed established thresholds and are considered significant, it is feasible that future improvements in air emissions controls could reverse this impact and reduce (reverse) or perhaps eliminate the air emissions and reduce or reverse the significant impact. For example, if project mobile source emissions contribute to a significant air quality impact, increased availability and/or adoption of electric vehicles could reduce the air quality emissions attributable to the project. Thus, the potential for a reversal of an identified impact, be it less than significant or significant, depends on the time scale used for evaluation (forever or just next year) and the likelihood that sufficient resources (societal or individual) will be applied to reverse an impact.

Another example that illustrates this topic is the potential exposure of people to an accidental spill of an acutely hazardous or toxic substance. If the threat is significant enough, society will demand that such exposure be eliminated immediately. Thus, such a spill and the related exposure to the hazard may be a significant environmental impact but it is typically immediately reversed. Where it is not reversed the potential significant effects will remain until sufficient individual or societal resources are expended to eliminate the hazard.

The significant irreversible/unavoidable impact projections were made using regional planning documents and site-specific technical studies. Significant irreversible/unavoidable impact impacts are discussed in issue each subchapter of Chapter 4 in this document. A discussion of significant irreversible/unavoidable impact can be found at the end of each subchapter for each topic discussed in Chapter 4. No significant irreversible/unavoidable impact for any topic were determined to result from implementation of the WVWRP. Please refer to each individual subchapter of Chapter 4 for an expanded discussion of significant irreversible/unavoidable impacts.

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CHAPTER 7 – PREPARATION RESOURCES

7.1 REPORT PREPARATION

7.1.1 Lead Agency

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7.1.2 EIR Consultant

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Tom Dodson
Kaitlyn Dodson
Christine Camacho

7.1.3 EIR Technical Consultants

- Preliminary Design Report: WWRF – AECOM
- West Valley Sewer Conveyance System Technical Memorandum – TKE Engineering, Inc.
- Air Quality & Greenhouse Gas Analysis – Giroux & Associates
- Biological Resources Assessment & Jurisdictional Delineation – Jacobs Engineering
- Historical/Archaeological Resources Survey Report – CRM TECH
- Geotechnical Investigation – AECOM
- Phase I Report – LOR Geotechnical Group, Inc.
- Antidegradation Analysis – EnviroLogic Resources, Inc.
- Groundwater Model – EnviroLogic Resources, Inc.
- Noise – Giroux & Associates

7.2 BIBLIOGRAPHY

AECOM, *Preliminary Design Report: Mission Springs Water District West Valley Water Reclamation Facility*, December 7, 2018

AECOM, *Technical Memorandum Geotechnical Investigation Prepared for the MSWD Regional Wastewater Treatment Plant Design Project*, October 24, 2018

California Department of Conservation: California Important Farmland Finder

California Energy Commission, 2016 Building Energy Efficiency Standards Frequently Asked Questions, Accessed November 29, 2018:
http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf

California Gas & Electric Utilities, California Gas Report-Southern California Gas Company, 2006

CalRecycle, Estimated Solid Waste Generation Rates website, Accessed November 14, 2018:
<https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates#Commercial>

CalRecycle, Facility/Site Summary Details: Landers Sanitary Landfill website, Accessed November 14, 2018: <https://www2.calrecycle.ca.gov/SWFacilities/Directory/36-AA-0057/Detail>

CalRecycle Facility/Site Summary Details: Lamb Canyon Landfill, Accessed November 14, 2018: <https://www2.calrecycle.ca.gov/SWFacilities/Directory/33-AA-0007/>

City of Desert Hot Springs, *City of Desert Hot Springs General Plan*, September 2000

City of Desert Hot Springs, *City of Desert Hot Springs Parks and Recreation Master Plan*, 2013

City of Desert Hot Springs Website, Accessed 11/12/18, <https://www.cityofdhs.org/>

Coachella Valley Multi-Species Habitat Conservation Plan, September 2007

Coachella Valley Regional Water Management Group Website, Accessed November 14, 2018:
<http://www.cvrwmq.org/>

Coachella Valley Water District Boundary Map Website, Accessed November 14, 2018:
<http://www.cvwd.org/>

Coachella Valley Water District, *CVWD 2015 Urban Water Management Plan*, July 1, 2016

County of Riverside, *County of Riverside General Plan*, July 11, 2017

County of Riverside. *Ordinance No. 659.7 – Establishing Development Impact Fees*

County of Riverside, *Western Coachella Valley Area Plan*, July 11, 2017

County of San Bernardino, County of San Bernardino C&D Recycling Guide. Available at:
http://cms.sbcounty.gov/portals/50/solidwaste/CandD_Recycling_Guide.pdf

CRM TECH, *Historical/Archaeological Resources Survey Report: West Valley Water Reclamation Program, in and near the City of Desert Hot Springs, Riverside County, California*, February 5, 2019

Ed Data Education Data Partnership Website. Accessed 11/8/2018 (<http://www.ed-data.org/district/Riverside/>)

EnviroLogic Resources, Inc., *Antidegradation Analysis – Phase I Discharges: Proposed West Valley Water Reclamation Facility, Desert Hot Springs, California*, March 13, 2019

EnviroLogic Resources, Inc., *Groundwater Model to Evaluate the Potential Impact from the Proposed West Valley Water Reclamation Facility Percolation Basins: West Valley Water Reclamation Facility, Desert Hot Springs, California*, September 7, 2018

Environmental Protection Agency, *Estimating Building Related C&D Materials Amounts*, 2003. Available at: <https://www.epa.gov/sites/production/files/2017-09/documents/estimating2003buildingrelatedcanddmaterialsamounts.pdf>

Giroux & Associates, *Acoustical Impact Analysis, MS-257 Mission Springs Water District Project, Desert Hot Springs and Riverside County, California*, December 14, 2018

Giroux & Associates, *Air Quality and GHG Impact Analyses, MS-257 Mission Springs Water District Project, Desert Hot Springs And Riverside County, California*, February 25, 2019

Jacobs Engineering Group, *Biological Resources Assessment, Jurisdictional Delineation and Land Use Consistency Analysis for the Mission Springs Water District's West Valley Water Reclamation Program*, March 2019

LOR Geotechnical Group, Inc., *Phase I Environmental Site Assessment Proposed West Valley Water Reclamation Facility 60-Acre Site NWC Little Morongo Road and 20th Avenue Desert Hot Springs Riverside County, California*, December 14, 2018

Mission Springs Water District, *MSWD 2015 Urban Water Management Plan*, June 20, 2016

Mission Springs Water District, *MSWD 2016 Consumer Confidence Report*, 2016

Palm Springs Unified School District Website. Accessed 11/8/2018
(<https://www.psusd.us/domain/196>)

Riverside County Airport Land Use Commission, *Riverside County Airport Land Use Compatibility Plan Policy Document*, March 2005

Riverside County Library Website. Accessed 11/9/18 (<http://rivlib.info/website/branch-page-829/location/DesertHotSprings>)

SCAG RTP 2012-2035 SCS Program EIR (PEIR)

SCAG RTP SCS 2016-2040 Appendix

SoCalGas, Company Profile website, Accessed November 14, 2018:

<https://www.socalgas.com/about-us/company-profile>

Southern California Association of Governments (SCAG) Final 2016 Profile of the City of Desert Hot Springs

Southern California Edison, Circuit Reliability Review, City of Desert Hot Springs, January 2018, Accessed November 29, 2018: <https://library.sce.com/content/dam/sce-doclib/public/reliability/deserthotsprings.pdf>

Southern California Edison Website, Accessed November 29, 2018:

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

Southern California Edison, Power Sources 2009-2013 website, Accessed on November 14, 2018: <https://newsroom.edison.com/gallery/file?&fid=5408c48afe058b7a72075813>

State Water Resources Control Board (SWRCB) GeoTracker

TKE Engineering, Inc., *West Valley Sewer Conveyance System Technical Memorandum*, April 9, 2019

Other Websites Accessed:

<http://www.aguacaliente.org/content/History%20and%20Culture/>

<https://www.arb.ca.gov/cc/inventory/data/data.htm>

<https://cdn2.hubspot.net/hubfs/4435988/sc%20Senior%20Center%20News.pdf?t=1541819044337>

<https://fred.stlouisfed.org/series/CARIVE5URN>

https://lafco.org/wp-content/uploads/documents/archives/2.0_RegionalPopulationGrowth.Final_Draft.pdf

https://www.psusd.us/site/handlers/filedownload.ashx?moduleinstanceid=7297&dataid=5924&FileName=FSCID_PalmSpringsUSD_1718_Final%204518.pdf

http://scagrtpscs.net/Documents/2016/draft/d2016RTPSCS_DemographicsGrowthForecast.pdf

https://www.zillow.com/homes/for_rent/Desert-Hot-Springs-CA/51701_rid/34.114647,-116.153641,33.677497,-116.6391_rect/10_zm/

https://ycharts.com/indicators/desert_hot_springs_ca_unemployment_rate

CHAPTER 8 – APPENDICES

8.1 NOTICE OF PREPARATION / NOP DISTRIBUTION LIST

8.2 SCOPING MEETING

8.3 NOP COMMENT LETTERS

APPENDIX 8.1

**NOTICE OF PREPARATION /
NOP DISTRIBUTION LIST**



Agency Notice of Preparation of a Draft Program Environmental Impact Report: Mission Springs Water District West Valley Water Reclamation Program

TO: Responsible Agencies, Organizations and Interested Parties

Mission Springs Water District (MSWD or District), as the Lead Agency pursuant to CEQA, is proposing to implement a West Valley Water Reclamation Program (WVWRP or Program) that includes constructing municipal wastewater collection and treatment systems that will promote the elimination of individual septic systems that overlie the Mission Creek, Desert Hot Springs, and Garnet Hill aquifers. The Program Environmental Impact Report (PEIR) analysis focuses on both the plan level and project level implementation, including site-specific construction and operation details of individual program elements, where individual elements are known. Therefore, MSWD will prepare a Program EIR for the project to satisfy the requirements of the CEQA (Public Resources Code [PRC] Section 21000 et seq.). The enclosed Exhibits show the location of the overall program and demonstrates various elements of the preferred alternative for the proposed program.

PROJECT TITLE: Mission Springs Water District West Valley Water Reclamation Program

PROJECT LOCATION: The MSWD service area is located in southern California within the northwestern portion of the Coachella Valley. The service area encompasses approximately 135 square miles with focus on the City of Desert Hot Springs and surrounding unincorporated areas of Riverside County. The service area also encompasses the villages of Palm Springs Crest and West Palm Springs located in the southwest corner of the District. Exhibit 1 shows the District's current service area boundaries. The service area is bordered to the north and northeast by the Little San Bernardino Mountains; on the east/southeast by the Seven Palms Valley and Edom Hills; on the south generally by Interstate 10, except in the southwest; and on the west by the San Bernardino Mountain foothills, west of State Route 62. All future proposed facilities will be located inside the MSWD service area boundary. Therefore, for purposes of this PEIR, the "project area" includes the MSWD service area as depicted in Exhibit 1.

PROJECT DESCRIPTION: MSWD envisions the facilities described in this Section as a key element in the long-term management of the region's groundwater resources, the primary water supply to District customers. The WVWRP is anticipated to be implemented over an extended period of between 3 to 10 years. The WVWRP has three components: construction of a West Valley Water Reclamation Facility (WVWRF), construction of a conveyance system connecting existing sewer areas to the WVWRF and constructing a collection system for the Groundwater Quality Protection Program (GQPP) Area M2 (to be served by the WVWRF).

As funding becomes available, the District's WVWRF will be installed and begin operation of Phase 1 with design flow of 1.5 MGD. Initial flows are projected to be 0.20 MGD. By the end of Year 1, flows are projected to be 0.29 MGD. Flows are projected to gradually increase to 1.0



MGD by Year 7 and 1.2 MGD by Year 9. The WVWRF will be constructed in phases with ultimate “build-out” capacity of up to 20 MGD. The WVWRF is being planned, designed, and implemented to permit MSWD to allow future expansion with minimal demolition and removal of any Phase 1 facilities. Expansion beyond the proposed 1.5 MGD wastewater treatment plant identified as Phase 1 is beyond the intent of this document. Exhibit 2 shows the location of the various facilities envisioned under the proposed project.

MSWD is committed to water recycling as a future wastewater management option. MSWD is proposing the new WVWRF as a first step. Initially, the level of treatment will be secondary with denitrification discharging to onsite infiltration basins. Provisions will be made to accommodate upgrades to advanced secondary and tertiary treatment as future steps toward producing recycle water depending on growth, demand, and available funding.

The conveyance system that will connect to existing sewer areas to the WVWRF would install about 7,531 lineal feet (LF) of 10” PVC force main pipeline and 8,923 LF of 24” to 36” VCP sewer main pipeline; while the collection system to be installed within GQPP Area M2 envisions the installation of approximately 25,260 linear feet of 4-inch gravity sewer, 20,122 lineal feet of 8-inch gravity sewer (VCP), with short runs of 12-inch to 15-inch gravity sewer pipeline. The entirety of the pipeline alignment will be installed within existing road rights-of-way.

Construction of the proposed WVWRP elements are anticipated to occur beginning in the Fourth Quarter of 2019. Construction of the WVWRF is expected to require about 18 months, while construction of the pipeline alignment is anticipated to require about 105 days assuming that two teams will be installing pipelines concurrently.

LEAD AGENCY:

Mission Springs Water District
66575 2nd St,
Desert Hot Springs, CA 92240
Attn: Danny Friend, Director of Engineering and Operations, MSWD

PURPOSE OF THIS NOTICE OF PREPARATION: In accordance with the California Code of Regulations (CCR) Section 15082, MSWD has prepared this notice of preparation (NOP) to inform agencies and interested parties that a Program EIR will be prepared for the above-referenced project. The project location and description are summarized above. Potentially significant environmental effects are summarized below. The purpose of this notice is to solicit guidance as to the scope and content of the environmental information to be included in the Program EIR, including mitigation measures that should be considered and alternatives that should be addressed (CCR Section 15082[b]).

POTENTIAL ENVIRONMENTAL IMPACTS: The following environmental issues will be analyzed in the EIR: aesthetics, agricultural and timberland resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gases/climate change, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, tribal cultural systems, and utilities and service systems, and wildfire.

These issue areas will be discussed further in the Program EIR, and where possible, feasible mitigation measures will be recommended to reduce any identified potentially significant and significant impacts.

PROVIDING COMMENTS: Agencies and interested parties may provide Mission Springs Water District with written comments on topics to be addressed in the EIR for the project. Pursuant to State CEQA Guidelines (Cal Code Regs., Title 14 para. 15000 et seq.) Section 15082(a), any response and comments must be submitted to this office as soon as possible but **not later than thirty (30) days** after the date upon this notice. Because of time limits mandated by State law, comments should be provided no later than 5:00 p.m. on March 18, 2019. The Notice of Preparation comment period begins on February 15, 2019 and ends on March 18, 2019. Please send all comments to:

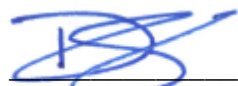
Mission Springs Water District
66575 2nd St,
Desert Hot Springs, CA 92240
Attn: Danny Friend, Director of Engineering and Operations, MSWD
Phone: (760) 329-6448
Email: dfriend@mswd.org

All comments on environmental issues received during the public comment period will be considered and addressed in the Draft EIR.

SCOPING MEETING: MSWD will hold a Scoping Meeting to inform interested parties about the proposed project and to provide agencies and the public with an opportunity to provide comments on the scope and content of the EIR. The meeting time and location are as follows: March 6, 2019 beginning at 5:30 p.m. at the Mission Springs Water District Board Room, located at 66575 2nd St, Desert Hot Springs, CA 92240. The meeting will conclude at 6:30 p.m.

If you have any questions please contact Danny Friend, Director of Engineering and Operations, at (760) 329-6448 or dfriend@mswd.org.

Sincerely,



Mr. Danny Friend
Director of Engineering and Operations
Mission Springs Water District

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73-720 FRED WARING DRIVE SUITE 100
PALM DESERT CA 92260

DESERT WATER AGENCY
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PALM DESERT CA 92211

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MANAGEMENT DISTRICT
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PALM SPRINGS CA 92262

APPENDIX 8.2
SCOPING MEETING

**NOTICE OF SCOPING MEETING FOR
MISSION SPRINGS WATER DISTRICT
WEST VALLEY WATER RECLAMATION PROGRAM**

Mission Springs Water District (MSWD or District), as the Lead Agency pursuant to CEQA, is proposing to implement a West Valley Water Reclamation Program (WVWRP or Program) that includes constructing municipal wastewater collection and treatment systems that will facilitate the elimination of individual septic systems that overlie the Mission Creek, Desert Hot Springs, and Garnet Hill aquifers. The WVWRP has three components: construction of a wastewater treatment plant (the West Valley Water Reclamation Facility or WVVRF), construction of a conveyance system connecting existing sewer areas to the WVVRF, and constructing a collection system for the Groundwater Quality Protection Program (GQPP) Area M2 (to be served by the WVVRF). The District's WVVRF will be installed and begin operation of Phase 1 with design flow of 1.5 million gallons per day (MGD).

The following environmental issues will be analyzed in the EIR: aesthetics, agricultural and timberland resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gases/climate change, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, tribal cultural systems, utilities and service systems, and wildfire.

These issue areas will be discussed further in the Program Environmental Impact Report (PEIR), and where possible, feasible mitigation measures will be recommended to reduce any identified potentially significant and significant impacts. A copy of the Notice of Preparation (NOP) and Initial Study can be reviewed at the MSWD offices listed below and on their website at <https://www.mswd.org/plans.aspx>.

MSWD will hold a Scoping Meeting to inform interested parties about the proposed project and to provide agencies and the public with an opportunity to provide comments on the scope and content of the PEIR. The meeting time and location are as follows: March 6, 2019 beginning at 5:30 p.m. at the Mission Springs Water District Board Room, located at 66575 2nd Street, Desert Hot Springs, CA 92240. The meeting will conclude at 6:30 p.m. If you have any questions please contact Danny Friend, Director of Engineering and Operations, at (760) 329-6448 or dfriend@mswd.org.

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Ad Description: MS-257 NOTICE FOR SCOPING MEETING

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02/23/2019

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NOTICE OF SCOPING MEETING FOR MISSION SPRINGS WATER DISTRICT WEST VALLEY WATER RECLAMATION PROGRAM

Mission Springs Water District (MSWD or District), as the Lead Agency pursuant to CEQA, is proposing to implement a West Valley Water Reclamation Program (WVWRP or Program) that includes constructing municipal wastewater collection and treatment systems that will facilitate the elimination of individual septic systems that overlie the Mission Creek, Desert Hot Springs, and Garnet Hill aquifers. The WVWRP has three components: construction of a wastewater treatment plant (the West Valley Water Reclamation Facility or WVWRF), construction of a conveyance system connecting existing sewer areas to the WVWRF, and constructing a collection system for the Groundwater Quality Protection Program (GQPP) Area M2 (to be served by the WVWRF). The District's WVWRF will be installed and begin operation of Phase 1 with design flow of 1.5 million gallons per day (MGD).

The following environmental issues will be analyzed in the EIR: aesthetics, agricultural and timberland resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gases/climate change, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, tribal cultural systems, utilities and service systems, and wildfire.

These issue areas will be discussed further in the Program Environmental Impact Report (PEIR), and where possible, feasible mitigation measures will be recommended to reduce any identified potentially significant and significant impacts. A copy of the Notice of Preparation (NOP) and Initial Study can be reviewed at the MSWD offices listed below and on their website at <https://www.mswd.org/plans.asp>.

MSWD will hold a Scoping Meeting to inform interested parties about the proposed project and to provide agencies and the public with an opportunity to provide comments on the scope and content of the PEIR. The meeting time and location are as follows: March 6, 2019 beginning at 5:30 p.m. at

the Mission Springs Water District Board Room, located at 66575 2nd Street, Desert Hot Springs, CA 92240. The meeting will conclude at 6:30 p.m. If you have any questions please contact Danny Friend, Director of Engineering and Operations, at (760) 329-6448 or dfriend@mswd.org.

CNS-3223664#
THE DESERT SUN



APPENDIX 8.3
NOP COMMENT LETTERS



Gavin Newsom
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Kate Gordon
Director

Notice of Preparation

February 15, 2019

To: Reviewing Agencies

Re: Mission Springs Water District West Valley Water Reclamation Program
SCH# 2019029091

Attached for your review and comment is the Notice of Preparation (NOP) for the Mission Springs Water District West Valley Water Reclamation Program draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

**Danny Friend
Mission Springs Water District
66575 Second Street
Desert Hot Springs, CA 92240-3711**

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

**Document Details Report
State Clearinghouse Data Base**

SCH# 2019029091
Project Title Mission Springs Water District West Valley Water Reclamation Program
Lead Agency Mission Springs Water District

Type NOP Notice of Preparation

Description Mission Springs Water District (MSWD or District), as the Lead Agency pursuant to CEQA, is proposing to implement a West Valley Water Reclamation program (WVWRP) that includes constructing municipal wastewater collection and treatment systems that will facilitate the elimination of individual septic systems that overlie the Mission Creek aquifer. The WVWRP has three components: construction of a wastewater treatment plant (the WVWRF), construction of a conveyance system connection existing sewer areas to the WVWRF, and construction a collection system for the GQPP Area M2 (to be served by the WVWRF). The District's WVWRF will be installed and begin operation of Phase 1 with design flow of 1.5 million gallons per day.

Lead Agency Contact

Name Danny Friend
Agency Mission Springs Water District
Phone (760) 329-6448 **Fax**
email
Address 66575 Second Street
City Desert Hot Springs **State** CA **Zip** 92240-3711

Project Location

County Riverside
City Desert Hot Springs
Region
Cross Streets 20th Ave., and Little Morongo Rd
Lat / Long 33° 52' 24" N / 116° 31' 48" W
Parcel No.
Township 3S **Range** 4E **Section** 14 **Base** SBBM

Proximity to:

Highways 10
Airports
Railways Union Pacific/Amtrak
Waterways Mission Creek
Schools
Land Use Light Industrial

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Coastal Zone; Cumulative Effects; Drainage/Absorption; Economics/Jobs; Fiscal Impacts; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Growth Inducing; Housing; Landuse; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Department of Fish and Wildlife, Region 6; Caltrans, District 8; Native American Heritage Commission; Cal Fire; Public Utilities Commission; Air Resources Board, Major Industrial Projects; State Water Resources Control Board; State Water Resources Control Board, Division of Drinking Water; State Water Resources Control Board, Division of Water Quality; State Water Resources Control Board, Division of Water Rights; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 7

Date Received 02/15/2019 **Start of Review** 02/15/2019 **End of Review** 03/18/2019

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
 For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH 2019020091

Project Title: Mission Springs Water District West Valley Water Reclamation ProgramLead Agency: Mission Springs Water DistrictContact Person: Danny FriendMailing Address: 66575 2nd StPhone: (760) 329-6448City: Desert Hot SpringsZip: 92240County: Riverside**Project Location:** County: RiversideCity/Nearest Community: Desert Hot SpringsCross Streets: 20th Avenue & Little Morongo RoadZip Code: 92240Longitude/Latitude (degrees, minutes and seconds): 33 ° 52 ' 24 " N / 116 ° 31 ' 48 " W Total Acres: 60 acresAssessor's Parcel No.: N/ASection: 14Twp.: 3SRange: 4EBase: SBBMWithin 2 Miles: State Hwy #: 10Waterways: Mission CreekAirports: n/aRailways: Union Pacific / Amtrak

Schools: _____

Document Type:CEQA: ☒ NOP☐ Draft EIRNEPA: ☐ NOIOther: ☐ Joint Document☐ Early Cons☐ Supplement/Subsequent EIR☐ EA☐ Final Document☐ Neg Dec

(Prior SCH No.) _____

☐ Draft EIS☐ Other: _____☐ Mit Neg Dec

Other: _____

☐ Other: _____

STATE CLEARINGHOUSE

Local Action Type:☐ General Plan Update☐ Specific Plan☐ Rezone☐ Annexation☐ General Plan Amendment☒ Master Plan☐ Prezone☐ Redevelopment☐ General Plan Element☐ Planned Unit Development☐ Use Permit☐ Coastal Permit☐ Community Plan☒ Site Plan☐ Land Division (Subdivision, etc.)☐ Other: _____**Development Type:**☐ Residential: Units _____ Acres _____☐ Office: Sq.ft. _____ Acres _____ Employees _____☐ Commercial: Sq.ft. _____ Acres _____ Employees _____☐ Industrial: Sq.ft. _____ Acres _____ Employees _____☐ Educational: _____☐ Recreational: _____☐ Water Facilities: Type _____ MGD _____☐ Transportation: Type _____☐ Mining: Mineral _____☐ Power: Type _____ MW _____☒ Waste Treatment: Type Wastewater TP MGD 1.5☐ Hazardous Waste: Type _____☒ Other: Sewage Pipeline**Project Issues Discussed in Document:**☒ Aesthetic/Visual☒ Fiscal☒ Recreation/Parks☐ Vegetation☒ Agricultural Land☒ Flood Plain/Flooding☒ Schools/Universities☒ Water Quality☒ Air Quality☒ Forest Land/Fire Hazard☒ Septic Systems☒ Water Supply/Groundwater☒ Archeological/Historical☒ Geologic/Seismic☒ Sewer Capacity☐ Wetland/Riparian☒ Biological Resources☒ Minerals☒ Soil Erosion/Compaction/Grading☒ Growth Inducement☒ Coastal Zone☒ Noise☒ Solid Waste☒ Land Use☒ Drainage/Absorption☒ Population/Housing Balance☒ Toxic/Hazardous☒ Cumulative Effects☒ Economic/Jobs☒ Public Services/Facilities☒ Traffic/Circulation☐ Other: _____**Present Land Use/Zoning/General Plan Designation:**Light Industrial**Project Description:** (please use a separate page if necessary)

Mission Springs Water District (MSWD or District), as the Lead Agency pursuant to CEQA, is proposing to implement a West Valley Water Reclamation Program (WVWRP) that includes constructing municipal wastewater collection and treatment systems that will facilitate the elimination of individual septic systems that overlie the Mission Creek aquifer. The WVWRP has three components: construction of a wastewater treatment plant (the WVWRF), construction of a conveyance system connecting existing sewer areas to the WVWRF, and constructing a collection system for the GQPP Area M2 (to be served by the WVWRF). The District's WVWRF will be installed and begin operation of Phase 1 with design flow of 1.5 million gallons per day (MGD).

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

NOP Distribution List

County: Riverside

SCH#

2019029091

Resources Agency

- ☐ **Resources Agency**
Nadell Gayou
- ☐ **Dept. of Boating & Waterways**
Denise Peterson
- ☐ **California Coastal Commission**
Allyson Hitt
- ☒ **Colorado River Board**
Elsa Contreras
- ☐ **Dept. of Conservation**
Crina Chan
- ☒ **Cal Fire**
Dan Foster
- ☐ **Central Valley Flood Protection Board**
James Herota
- ☐ **Office of Historic Preservation**
Ron Parsons
- ☒ **Dept of Parks & Recreation**
Environmental Stewardship Section
- ☐ **S.F. Bay Conservation & Dev't. Comm.**
Steve Goldbeck
- ☐ **Dept. of Water Resources**
Nadell Gayou
- Fish and Game**
 - ☐ **Dept. of Fish & Wildlife**
Scott Flint
Environmental Services Division
 - ☐ **Fish & Wildlife Region 1**
Curt Babcock
 - ☐ **Fish & Wildlife Region 1E**
Laurie Harnsberger
 - ☐ **Fish & Wildlife Region 2**
Jeff Drongesen
 - ☐ **Fish & Wildlife Region 3**
Craig Weightman

- ☐ **Fish & Wildlife Region 4**
Julie Vance
- ☐ **Fish & Wildlife Region 5**
Leslie Newton-Reed
Habitat Conservation Program
- ☒ **Fish & Wildlife Region 6**
Tiffany Ellis
Habitat Conservation Program
- ☐ **Fish & Wildlife Region 6 I/M**
Heidi Calvert
Inyo/Mono, Habitat Conservation Program
- ☐ **Dept. of Fish & Wildlife M**
William Paznokas
Marine Region
- Other Departments**
 - ☐ **California Department of Education**
Lesley Taylor
 - ☐ **OES (Office of Emergency Services)**
Monique Wilber
 - ☐ **Food & Agriculture**
Sandra Schubert
Dept. of Food and Agriculture
 - ☐ **Dept. of General Services**
Cathy Buck
Environmental Services Section
 - ☐ **Housing & Comm. Dev.**
CEQA Coordinator
Housing Policy Division
- Independent Commissions, Boards**
 - ☐ **Delta Protection Commission**
Erik Vink
 - ☐ **Delta Stewardship Council**
Anthony Navasero
 - ☐ **California Energy Commission**
Eric Knight

- ☒ **Native American Heritage Comm.**
Debbie Treadway
- ☒ **Public Utilities Commission**
Supervisor
- ☐ **Santa Monica Bay Restoration**
Guangyu Wang
- ☐ **State Lands Commission**
Jennifer Deleong
- ☐ **Tahoe Regional Planning Agency (TRPA)**
Cherry Jacques
- Cal State Transportation Agency CalSTA**
 - ☐ **Caltrans - Division of Aeronautics**
Philip Crimmins
 - ☐ **Caltrans - Planning HQ LD-IGR**
Christian Bushong
 - ☐ **California Highway Patrol**
Suzann Ikeuchi
Office of Special Projects
- Dept. of Transportation**
 - ☐ **Caltrans, District 1**
Rex Jackman
 - ☐ **Caltrans, District 2**
Marcelino Gonzalez
 - ☐ **Caltrans, District 3**
Susan Zanchi
 - ☐ **Caltrans, District 4**
Patricia Maurice
 - ☐ **Caltrans, District 5**
Larry Newland
 - ☐ **Caltrans, District 6**
Michael Navarro
 - ☐ **Caltrans, District 7**
Dianna Watson
 - ☒ **Caltrans, District 8**
Mark Roberts

- ☐ **Caltrans, District 9**
Gayle Rosander
- ☐ **Caltrans, District 10**
Tom Dumas
- ☐ **Caltrans, District 11**
Jacob Armstrong
- ☐ **Caltrans, District 12**
Maureen El Harake
- Cal EPA**
 - ☐ **Air Resources Board**
 - ☐ **Airport & Freight**
Jack Wursten
 - ☐ **Transportation Projects**
Nesamani Kalandiyur
 - ☒ **Industrial/Energy Projects**
Mike Tollstrup
 - ☐ **California Department of Resources, Recycling & Recovery**
Kevin Taylor/Jeff Esquivel
 - ☐ **State Water Resources Control Board**
Regional Programs Unit
Division of Financial Assistance
 - ☒ **State Water Resources Control Board**
Cindy Forbes - Asst Deputy
Division of Drinking Water
 - ☒ **State Water Resources Control Board**
Div. Drinking Water # _____
 - ☒ **State Water Resources Control Board**
Student Intern, 401 Water Quality Certification Unit
Division of Water Quality
 - ☒ **State Water Resources Control Board**
Phil Crader
Division of Water Rights
 - ☒ **Dept. of Toxic Substances Control Reg. # _____**
CEQA Tracking Center
 - ☐ **Department of Pesticide Regulation**
CEQA Coordinator

- ☐ **Regional Water Quality Control Board (RWQCB)**
 - ☐ **RWQCB 1**
Cathleen Hudson
North Coast Region (1)
 - ☐ **RWQCB 2**
Environmental Document Coordinator
San Francisco Bay Region (2)
 - ☐ **RWQCB 3**
Central Coast Region (3)
 - ☐ **RWQCB 4**
Teresa Rodgers
Los Angeles Region (4)
 - ☐ **RWQCB 5S**
Central Valley Region (5)
 - ☐ **RWQCB 5F**
Central Valley Region (5)
Fresno Branch Office
 - ☐ **RWQCB 5R**
Central Valley Region (5)
Redding Branch Office
 - ☐ **RWQCB 6**
Lahontan Region (6)
 - ☐ **RWQCB 6V**
Lahontan Region (6)
Victorville Branch Office
 - ☒ **RWQCB 7**
Colorado River Basin Region (7)
 - ☐ **RWQCB 8**
Santa Ana Region (8)
 - ☐ **RWQCB 9**
San Diego Region (9)
 - ☐ **Other** _____

☒ Coachella Valley
Conservancy mtw



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA USPS AND E-MAIL:

March 5, 2019

dfriend@mswd.org

Danny Friend, Director of Engineering and Operations
Mission Springs Water District
66575 2nd Street
Desert Hot Springs, CA 92240

Notice of Preparation of a Draft Program Environmental Impact Report for the Proposed West Valley Water Reclamation Program

South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. SCAQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the Proposed Project that should be included in the Draft Program Environmental Impact Report (PEIR). Please send SCAQMD a copy of the Draft PEIR upon its completion. Note that copies of the Draft PEIR that are submitted to the State Clearinghouse are not forwarded to SCAQMD. Please forward a copy of the Draft PEIR directly to SCAQMD at the address shown in the letterhead. **In addition, please send with the Draft PEIR all appendices or technical documents related to the air quality, health risk, and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files¹. These include emission calculation spreadsheets and modeling input and output files (not PDF files). Without all files and supporting documentation, SCAQMD staff will be unable to complete our review of the air quality analyses in a timely manner. Any delays in providing all supporting documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from SCAQMD's Subscription Services Department by calling (909) 396-3720. More guidance developed since this Handbook is also available on SCAQMD's website at: [http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-\(1993\)](http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993)). SCAQMD staff also recommends that the Lead Agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

SCAQMD has also developed both regional and localized significance thresholds. SCAQMD staff requests that the Lead Agency quantify criteria pollutant emissions and compare the results to SCAQMD's CEQA regional pollutant emissions significance thresholds to determine air quality impacts.

¹ Pursuant to the CEQA Guidelines Section 15174, the information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public. Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR. Appendices to the EIR may be prepared in volumes separate from the basic EIR document, but shall be readily available for public examination and shall be submitted to all clearinghouses which assist in public review.

THE JOURNAL OF THE ROYAL ANTHROPOLOGICAL INSTITUTE

Volume 100, Part 1, 1970

Edited by
J. H. REES

Published by the
Royal Anthropological Institute
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The Journal of the Royal Anthropological Institute is a quarterly publication which provides a forum for the presentation of original research in all branches of anthropology. The Journal is particularly concerned with the publication of work which is of broad international interest and which is of a high standard of scholarship. The Journal is published in English and is available to all members of the Royal Anthropological Institute. The Journal is also available to non-members on a subscription basis. The Journal is published by the Royal Anthropological Institute, 21, Bedford Square, London, W.C.1A 3EJ.

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SCAQMD's CEQA regional pollutant emissions significance thresholds can be found here: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>. In addition to analyzing regional air quality impacts, SCAQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the Proposed Project, it is recommended that the Lead Agency perform a localized analysis by either using the LSTs developed by SCAQMD staff or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the Proposed Project and all air pollutant sources related to the Proposed Project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, such as sources that generate or attract vehicular trips, should be included in the analysis.

In the event that the Proposed Project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the Lead Agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*") can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses (such as placing homes near freeways) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Health Perspective*, which can be found at: <http://www.arb.ca.gov/ch/handbook.pdf>. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. Guidance² on strategies to reduce air pollution exposure near high-volume roadways can be found at: https://www.arb.ca.gov/ch/rd_technical_advisory_final.PDF.

Mitigation Measures

In the event that the Proposed Project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize these impacts. Pursuant to CEQA Guidelines Section 15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are

² In April 2017, CARB published a technical advisory, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways: Technical Advisory*, to supplement CARB's *Air Quality and Land Use Handbook: A Community Health Perspective*. This technical advisory is intended to provide information on strategies to reduce exposures to traffic emissions near high-volume roadways to assist land use planning and decision-making in order to protect public health and promote equity and environmental justice. The technical advisory is available at: <https://www.arb.ca.gov/ch/landuse.htm>.

available to assist the Lead Agency with identifying potential mitigation measures for the Proposed Project, including:

- Chapter 11 "Mitigating the Impact of a Project" of SCAQMD'S *CEQA Air Quality Handbook*. SCAQMD's CEQA web pages available here: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies>
- SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions and Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities
- SCAQMD's Mitigation Monitoring and Reporting Plan (MMRP) for the 2016 Air Quality Management Plan (2016 AQMP) available here (starting on page 86): <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-mar3-035.pdf>
- CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* available here: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

Alternatives

In the event that the Proposed Project generates significant adverse air quality impacts, CEQA requires the consideration and discussion of alternatives to the project or its location which are capable of avoiding or substantially lessening any of the significant effects of the project. The discussion of a reasonable range of potentially feasible alternatives, including a "no project" alternative, is intended to foster informed decision-making and public participation. Pursuant to CEQA Guidelines Section 15126.6(d), the Draft PEIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Proposed Project.

Permits and SCAQMD Rules

In the event that the Proposed Project requires a permit from SCAQMD, SCAQMD should be identified as a Responsible Agency for the Proposed Project in the Draft PEIR. The assumptions in the air quality analysis in the Draft PEIR will be the basis for permit conditions and limits. For more information on permits, please visit SCAQMD's webpage at: <http://www.aqmd.gov/home/permits>. Questions on permits can be directed to SCAQMD's Engineering and Permitting staff at (909) 396-3385.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available at SCAQMD's webpage at: <http://www.aqmd.gov>.

SCAQMD staff is available to work with the Lead Agency to ensure that project air quality and health risk impacts are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at lsun@aqmd.gov or (909) 396-3308.

Sincerely,

Lijin Sun

Lijin Sun, J.D.

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department

1550 Harbor Blvd., Suite 100

West Sacramento, CA 95691 Phone (916) 373-3710

Email: nahc@nahc.ca.govWebsite: <http://www.nahc.ca.gov>

Twitter: @CA_NAHC



March 6, 2019

Danny Friend
Mission Springs Water District
66575 Second Street
Desert Hot Springs, CA 92240-3711

RE: SCH# 2019029091 Mission Springs Water District West Valley Water Reclamation Program, Riverside County

Dear Mr. Friend:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states 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. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
 - a. A brief description of the project.
 - b. The lead agency contact information.
 - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
 - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
 - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
 - a. Alternatives to the project.
 - b. Recommended mitigation measures.
 - c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).
4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
 - a. Type of environmental review necessary.
 - b. Significance of the tribal cultural resources.
 - c. Significance of the project's impacts on tribal cultural resources.
 - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
 - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
 - b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
 - a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
 - a. Avoidance and preservation of the resources in place, including, but not limited to:
 - i. Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i. Protecting the cultural character and integrity of the resource.
 - ii. Protecting the traditional use of the resource.
 - iii. Protecting the confidentiality of the resource.
 - c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
 - a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
 - b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
 - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email

address: Steven.Quinn@nahc.ca.gov.

Sincerely,



for Steven Quinn
Associate Governmental Program Analyst

cc: State Clearinghouse

Colorado River Basin Regional Water Quality Control Board

March 13, 2019

Danny Friend
Director Engineering and Operations
Mission Springs Water District
66575 2nd Street
Desert Hot Springs, CA 92240

**SUBJECT: NOTICE OF PREPARATION, DRAFT PROGRAM ENVIRONMENTAL IMPACT
REPORT: MISSION SPRINGS WATER DISTRICT WEST VALLEY WATER
RECLAMATION PROGRAM**

Dear Mr. Friend:

Staff of the California Regional Water Quality Control Board, Colorado River Basin Region (Regional Water Board) have reviewed the Notice of Preparation (NOP) for a Draft Program Environmental Impact Report (PEIR) for the proposed West Valley Water Reclamation Program (Program) proposed to be developed within the boundaries of the Mission Spring Water District (District).

The Project includes three components: (1) Constructing a new municipal wastewater reclamation plant (WRP) in the southwestern portion of the Districts' service area; (2) constructing a new wastewater conveyance system to connect existing sewered areas to the new WRP; and (3) constructing a new wastewater conveyance system to areas not currently sewered. Total build-out is expected to take 3 to 10 years, depending on the availability of funding. Wastewater flow rates are estimated to total 0.29 million gallons per day (MGD) by the end of year 1, increasing to 1.0 MGD by year 7 and 1.2 MGD by year 9. These improvements are being implemented to protect groundwater throughout the basin from degradation by septic system discharges. In general, the Regional Water Board supports the Program.

We believe that the PEIR should incorporate the following comments in order for the Program to best protect water quality:

1. The WRP will be required to obtain Waste Discharge Requirements (WDRs) from the Regional Water Board as part of the permitting process. The WDRs will include effluent limitations for both volume and water quality, and will specify a monitoring and reporting program (MRP). The PEIR should include provisions for identifying and complying with the WDRs and MRP requirements.
2. Regional Water Board staff previously reviewed a separate report from the District entitled *Groundwater Model to Evaluate the Potential Impact from the Proposed West Valley Water Reclamation Facility Percolation Basins* prepared by EnviroLogic Resources Inc. dated May 4, 2018. That report modeled the vertical and lateral extent of nitrate-containing water under a range of recharge scenarios over a period of up to 100 years. Nitrate was used as the constituent of concern (COC) because it is ubiquitous in wastewater, persistent in the


environment, flows at the same velocity as groundwater (it is not retarded by interaction with the aquifer materials), and has a fairly low water quality limit. The focus of the study was to evaluate whether a groundwater production well (Well 33) located in the northern part of the WRP property would be adversely impacted by discharge to percolation ponds located in the southern portion of the WRP property. Note that groundwater naturally flows to the south in the vicinity of the WRP.

The modeling study found that Well 33 was impacted by nitrates from the recharge basins after recharge rates increased to 3.0 MGD, anticipated to occur in 50 years, but could occur sooner if the conductivity of the aquifer is lower than modeled or the discharge rates are higher. Under lower flow rates, the natural southerly groundwater flow was not sufficiently reversed to the north by the recharge at the WRP. The model indicated nitrate-affected groundwater would extend several miles to the south several miles and to a depth of several thousand feet. Regional Water Board staff found the methods and findings of the modeling study to be reasonable. We concur with the recommendations that the growth of the groundwater mound beneath the recharge basins be monitored to provide early warning of impending impacts to Well 33.

3. Other COCs associated with wastewater include salinity, generally measured as total dissolved solids (TDS). The Federal secondary maximum contaminant level (MCL) for TDS in drinking water is 500 milligrams per liter (mg/L). Wastewater commonly contains TDS in excess of 500 mg/L. The PEIR should address how the Project will affect TDS concentrations in the basin as a whole and the vicinity of the WRP in particular, and evaluate mitigation strategies for preserving the high quality of groundwater downgradient of the WRP, in conformance with the State Water Resources Control Board's Anti-degradation Policy (Resolution 68-16).

If you have any questions, please contact Doug Wylie at (760) 776-8960 or doug.wylie@waterboards.ca.gov, or Scot Stormo at (760) 776-8964 or scot.stormo@waterboards.ca.gov

Sincerely,



Doug Wylie, P.E.
Senior Water Resource Control Engineer
Colorado River Basin
Regional Water Quality Control Board

SAS/hv

cc: State Clearinghouse, SCH#2019029091, 1400 Tenth Street, PO Box 3044, Sacramento, CA 95812-3044

File: Working File



Patricia Romo, P.E.
Director of Transportation

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY

Transportation Department

Mojahed Salama, P.E.
Deputy for Transportation/Capital Projects
Richard Lantis, P.L.S.
*Deputy for Transportation/Planning and
Development*

March 14, 2019

Danny Friend, Director of Engineering and Operation
Mission Springs Water District
66575 Second Street
Desert Hot Springs, CA. 92240

RE: Notice of Preparation of a Draft Environmental Impact Report for the Mission Springs Water District West Valley Water Reclamation Program (Project).

Dear Mr. Friend:

Thank you for providing the Riverside County Transportation Department (County) and opportunity to review the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Mission Springs Water District West Valley Water Reclamation Project.

The project proposes to install about 7,531 lineal feet (LF) of 10-inch PVC force main pipeline, 8,923 LF of 24-inch to 36-inch VCP sewer main pipeline, 25,260 LF of 4-inch gravity sewer, 20,122 LF of 8-inch gravity sewer and a short runs of 12-inch to 15-inch gravity sewer pipeline within the Mission Springs Water District service area boundary.

If the Project encroaches upon or utilizes County road rights-of-way, the Transportation Department would require the Project proponent to obtain an encroachment permit. In addition to the encroachment permit the Project may be required to prepare a traffic control plan for construction traffic.

Thank you again for the opportunity to review the NOP for the Draft EIR. Please contact me at (951) 955-2016 with questions or comments.



COUNTY OF RIVERSIDE
TRANSPORTATION AND
LAND MANAGEMENT AGENCY

Patricia Romo, P.E.
Director of Transportation

Transportation Department

Mojahed Salama, P.E.
Deputy for Transportation/Capital Projects
Richard Lantis, P.L.S.
Deputy for Transportation/Planning and
Development

Sincerely,

Russell Williams

Russell Williams
Development Review Manager
RUW: KTK/TT

Cc: Juan C. Perez, Director of Transportation and Land Management
Patricia Romo, Director of Transportation
Richard Lantis, Deputy Director of Transportation