Initial Study
Lucerne Valley Groundwater Recharge Project
San Bernardino County, California

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SECTION 1 - INTRODUCTION

The Mojave Water Agency (MWA) was founded in 1960 to manage the Mojave area water supply due to concerns over declining groundwater levels. Governed by an elected Board of Directors, the MWA was created for the explicit purpose of doing “any and every act necessary, so that sufficient water may be available for any present or future beneficial use of the lands and inhabitants within the Agency’s jurisdiction’ as stated in the MWA law chapter 97-1.5.”

The MWA is also one of 29 State Water Project (SWP) contractors, serving as the regional imported supplemental (SWP) water provider for 4,900 square miles in San Bernardino County, including Barstow, Lucerne Valley, the Victor Valley, Yucca Valley, and surrounding communities.

To best manage the groundwater supplies, the Mojave Groundwater Basin is divided into five separate groundwater management “subareas,” based on hydrologic divisions defined by various hydrologic, geologic, engineering, and political considerations. The subareas are: 1) Oeste; 2) Este; 3) Alto; 4) Centro, and 5) Baja. The MWA also actively assists the groundwater management of the Morongo Basin/Johnson Valley Area through a separate agreement with water service providers in the Morongo Basin. As such, MWA operates multiple pipelines and turnouts to provide SWP water from three locations off the East Branch of the California Aqueduct and one location from Silverwood Lake Dam.

Groundwater pumping is controlled by a 1996 court order (Mojave Basin Adjudication) that identified limits for groundwater pumping in the Mojave Basin, required the MWA to take action to ensure the Basin has adequate groundwater supply, and designated the MWA as the Mojave Basin Watermaster to track the groundwater supply.

As part of the MWA’s responsibility to ensure that adequate groundwater supplies are available in each of the subareas, the MWA operates and maintains recharge areas where imported SWP water is spread on the surface of the recharge area so the water then percolates down through the soils into the underlying groundwater basin.

MWA operates recharge facilities in all subareas, except in the Oeste and Este subareas where no such recharge facilities exist. The Oeste subarea primarily serves the Phelan area, and the Este subarea serves the Lucerne Valley area.

The MWA is proposing to construct a groundwater recharge facility to serve the Este subarea. The recharge facility will be located at its existing Lucerne Valley Pump Station, located on Foothill Road, just east of the intersection of Dallas Avenue, approximately 0.5 mile south of Hwy 247 in Lucerne Valley (Figure 1 and Figure 2). The Lucerne Valley Pump Station is a part of the existing Morongo Basin Pipeline that currently transports imported supplemental SWP water to retail suppliers in the Morongo Basin.

Background

Due to growing concerns of overdraft of the Mojave Basin, the Mojave Basin Adjudication set limits on groundwater production within five established groundwater management subareas: 1) Oeste; 2) Este; 3) Alto; 4) Centro, and 5) Baja. The proposed Project site is located in the Este subarea.

Under the Mojave Basin Adjudication, each entity considered a water producer between 1986 and 1990 was determined to have a certain Base Annual Production (BAP). However, because the area does not have enough water for producers to pump their maximum amount, the producer is assigned a Free Production Allowance (FPA), which is a percentage of its BAP. A producers’ FPA is the amount of water that can be pumped for free...
during a year without having to pay the MWA to purchase Replacement Water from the SWP or purchase FPA rights from another party within their subarea.

The Mojave Basin Adjudication also established the office of the Mojave Basin Watermaster within the MWA that is responsible for carrying out the court order, providing an annual accounting of all pumped and stored groundwater in the groundwater management subareas, collecting funds to pay for replacement water (SWP imported water), and ensuring that the groundwater within each subbasin is sustainable. Currently, there is a department within the MWA that serves as the Mojave Basin Watermaster.

The Mojave Basin Watermaster staff, in conjunction with MWA staff, annually assesses the water delivery service needs based on the current and forecasted uses, population, existing supplies, funds available, and other factors. MWA then purchases the anticipated needed imported SWP supply of water and delivers this to various groundwater recharge facilities or for direct use by two customers for power production facilities.

Imported supplemental SWP water is one of four sources of water for the groundwater basin recharge within MWA’s service area. Other sources include natural local surface water flows, return flow from pumped groundwater not consumptively used, and wastewater imports from outside the MWA service area. Natural surface supply, return flow, wastewater imports, and SWP imports are used to recharge the groundwater basins (Kennedy-Jenks, June 2016).

**Water Supply and Demand**

Under its current contract with DWR, MWA can deliver up to 85,800 acre-feet per year (AFY) of SWP water to groundwater basins within MWA. The actual water quantity allocated to each State Water Contractor varies annually based on SWP available supply and weather conditions in the State for that year.

The amount of SWP water that MWA delivers into the Mojave Basin subareas for direct delivery and/or groundwater recharge is based on a variety of factors which include: existing groundwater levels, existing hydrogeology in the area, water quality, delivery facility capabilities, weather, surface water conditions, future customer demand projections, and financial resources. Therefore, the actual amount of delivered SWP water into the various subareas varies every year. In the Mojave Basin subareas, the Watermaster accounts for all imported SWP deliveries. Currently MWA has more than 100,000 AF of water stored within the various groundwater basin to meet future replacement water demands However, no recharge occurs in the Oeste and Este Subareas because there are no recharge facilities.

In addition to providing SWP water to the communities within the adjudicated subareas of the Mojave Basin, the MWA also provides imported supplemental SWP water to the Morongo Basin/Johnson Valley area, outside of the Mojave Basin, via the Morongo Basin Pipeline. The 69-mile Morongo Basin Pipeline delivers water via gravity flow from the aqueduct booster pumping stations in Lucerne Valley and Johnson Valley that boost the flow so the water will reach the groundwater recharge facilities in the Morongo Valley.

The Morongo Basin Pipeline was built by the MWA in the 1990s through a bond measure financed by the MWA and residents in the Hi Desert Water District (HDWD), the Joshua Basin Water District (JBWD), the Bighorn-Desert View Water Agency (BDVWA), and San Bernardino County Service Area 70 (CSA-70). Through the bond measure, the pipeline ownership and MWA’s SWP delivery commitments were identified in an Improvement District M Agreement (IDM-Agreement). The IDM Agreement identified a delivery commitment of 7,257 AFY (1/7 of 50,800 AF of MWA SWP contract amount at the time the agreement was executed) to MWA, HDWD, JBWD, BDVWA, CSA-70, which is reduced by MWA’s SWP actual allocation percentage for that year. Any unused SWP water capacity in the Morongo Basin Pipeline is available to MWA to deliver to SWP water to any of the other recharge areas or customers in the MWA service area.
considers customer requests (including Mojave Basin Watermaster, ID-M participants, Victorville HDPP, Luz Solar) a higher priority than pre-delivered SWP water going into groundwater storage.

The Morongo Basin Pipeline bond is anticipated to be paid off in 2023. As such, the delivery agreement to the Morongo Basin as identified in the IDM Agreement will expire. However, on October 11, 2012, MWA adopted Resolution 961-12 that declares that when the ID-M Agreement expires, it is the intent of the MWA that the Morongo Pipeline ownership will remain with the MWA and the capacity in the Morongo Basin Pipeline will remain with the IDM project participants for beneficial use for lands located within the IDM project boundaries.

Current adjudication and legal agreements in the Morongo/Johnson Valley management subareas include the following:

- The Warren Valley Basin adjudicated area is located within the Morongo Basin/Johnson Valley Area ("Morongo"). Groundwater from the Warren Valley Basin is used to supply the Town of Yucca Valley and its environs, with the High Desert Water District (HDWD) serving as the Watermaster. The HDWD identifies in its Basin Plan that it would import SWP water from MWA through the Morongo Basin Pipeline Project to balance demand and replenish past overdraft. The Mojave Water Agency typically delivers 3,000 to 4,000 acre feet per year (AFY) based on delivery orders from HDWD, supplied through the Morongo Basin Pipeline Project.

- The Ames Valley Basin, which is not adjudicated, encompasses the communities of Flamingo Heights, Landers, Yucca Mesa, and Pioneertown. The MWA serves as administrative support, with the Bighorn-Desert View Water Agency (BDVWA), HDWD, and San Bernardino County Service Area 70 (CSA 70) managing the Groundwater Storage and Recovery Program. The MWA typically provides 70 to 100 AFY based on delivery orders from BDVWA and CSA 70, supplied through the Morongo Basin Pipeline.

- JBWD is not in an adjudicated basin but also has groundwater recharge facilities served by the Morongo Basin Pipeline Project. The MWA typically provides 500 to 1,000 AFY based on delivery orders from JBWD, which is supplied through the Morongo Basin Pipeline Project.

According to the MWA’s 2015 Urban Water Management plan, the historical local water demand has decreased throughout the service area in the last several years due to drought conditions, economic factors, conservation programs, land use changes, community awareness and local water restriction ordinances. Future projections indicate that population in the region is anticipated to grow 33 percent by 2040 at a rate of 1.6 percent per year, but per capita water use is projected to continue to decrease in the future (Table 1). This projected decrease is due to active water savings, such as the 2014 State mandate for mandatory conservation, and passive water savings, such as building code requirements to utilize low-flow fixtures in indoor plumbing (Kennedy-Jenks, 2016).

Table 2 identifies water demand projected through 2040, including within the Morongo Basin.
Table 1
Service Area Population Projections by Subarea

<table>
<thead>
<tr>
<th>Subarea</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alto Transition Zone</td>
<td>24,364</td>
<td>26,132</td>
<td>28,465</td>
<td>31,413</td>
<td>34,616</td>
<td>37,663</td>
</tr>
<tr>
<td>Baja</td>
<td>4,762</td>
<td>4,812</td>
<td>4,872</td>
<td>4,933</td>
<td>4,989</td>
<td>5,036</td>
</tr>
<tr>
<td>Centro</td>
<td>35,524</td>
<td>36,393</td>
<td>37,322</td>
<td>38,248</td>
<td>39,125</td>
<td>39,943</td>
</tr>
<tr>
<td>Este</td>
<td>7,646</td>
<td>8,073</td>
<td>8,615</td>
<td>9,196</td>
<td>9,753</td>
<td>10,244</td>
</tr>
<tr>
<td>Oeste</td>
<td>11,299</td>
<td>12,406</td>
<td>13,864</td>
<td>15,504</td>
<td>17,152</td>
<td>18,667</td>
</tr>
<tr>
<td><strong>Mojave Basin Area (MBA)</strong></td>
<td><strong>430,260</strong></td>
<td><strong>459,172</strong></td>
<td><strong>500,482</strong></td>
<td><strong>548,814</strong></td>
<td><strong>599,321</strong></td>
<td><strong>646,555</strong></td>
</tr>
<tr>
<td>Morongo</td>
<td>39,291</td>
<td>40,795</td>
<td>42,783</td>
<td>44,995</td>
<td>47,168</td>
<td>49,092</td>
</tr>
<tr>
<td><strong>Total MWA Service Area</strong></td>
<td><strong>469,551</strong></td>
<td><strong>499,967</strong></td>
<td><strong>543,265</strong></td>
<td><strong>593,809</strong></td>
<td><strong>646,489</strong></td>
<td><strong>695,647</strong></td>
</tr>
</tbody>
</table>

Source: 2015 Urban Water Management Plan

Table 2
MWA Projected Water Demands by Subarea (AFY)

<table>
<thead>
<tr>
<th>Subarea</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alto</td>
<td>71,300</td>
<td>80,346</td>
<td>84,767</td>
<td>90,163</td>
<td>95,747</td>
<td>100,823</td>
</tr>
<tr>
<td>Baja</td>
<td>29,700</td>
<td>29,700</td>
<td>29,700</td>
<td>29,700</td>
<td>29,700</td>
<td>29,700</td>
</tr>
<tr>
<td>Centro</td>
<td>20,100</td>
<td>20,576</td>
<td>20,555</td>
<td>20,551</td>
<td>20,557</td>
<td>20,549</td>
</tr>
<tr>
<td>Este</td>
<td>6,800</td>
<td>6,800</td>
<td>6,800</td>
<td>6,800</td>
<td>6,800</td>
<td>6,800</td>
</tr>
<tr>
<td>Oeste</td>
<td>3,600</td>
<td>4,002</td>
<td>4,236</td>
<td>4,517</td>
<td>4,796</td>
<td>5,061</td>
</tr>
<tr>
<td><strong>MBA Subtotal</strong></td>
<td><strong>131,500</strong></td>
<td><strong>141,424</strong></td>
<td><strong>146,058</strong></td>
<td><strong>151,731</strong></td>
<td><strong>157,600</strong></td>
<td><strong>162,933</strong></td>
</tr>
<tr>
<td>Morongo</td>
<td>6,509</td>
<td>6,942</td>
<td>7,128</td>
<td>7,349</td>
<td>7,564</td>
<td>7,767</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>138,009</strong></td>
<td><strong>148,366</strong></td>
<td><strong>153,186</strong></td>
<td><strong>159,079</strong></td>
<td><strong>165,164</strong></td>
<td><strong>170,700</strong></td>
</tr>
</tbody>
</table>

Source: 2015 Urban Water Management Plan

MWA Water Service Facilities

The amount of SWP water MWA delivers to customers and recharge facilities varies every year based on SWP allocation for that year, customer’s orders, existing groundwater hydrology, financial considerations, and facility capabilities. Various MWA pipeline and facilities are connected to the California Aqueduct to deliver SWP water to various MWA and customer groundwater recharge facilities within the MWA service area. The amount of water that goes through each of the pipelines and facilities is controlled by turnouts at the Aqueduct based on MWA’s determination of need for the area (including groundwater storage) and customer delivery requests. Therefore, MWA has the ability to reduce or increase the delivery to each of the various recharge areas or customers through the turnout and pipeline facility controls. The following is a short summary of the facilities that deliver SWP water:

- The Morongo Basin Pipeline Project is designed to delivery up to 45,000 AFY to various recharge areas in south Apple Valley (Rock Springs, and Deep Creek) within the Alto sub basin area of the Mojave
Basin area, and up to 9,000 AFY from the Apple Valley Area to the Lucerne and Johnson Valley pump stations in order to deliver supplemental SWP water to the Morongo Basin/Johnson Valley areas, which is outside of the Mojave Basin. The Morongo Pipeline is made up of the following components:

1) 54-inch pipeline from the Aqueduct to the Rock Springs/Deep Creek Outlets into the Alto subarea along the upper Mojave River has a flow capacity of up to 112 cfs (91 cfs MWA, 21 cfs other ID-M Participants).

2) 30-inch pipeline from the Rock Springs/Deep Creek Outlets to the Lucerne Valley Pump Station has a flow capacity of up to 22 cfs (0.88 cfs MWA, 21.12 cfs other ID-M Participants). At the maximum flow rate of 22 cfs, the maximum contract SWP supply for ID-M participants of 7,257 AFY can be delivered in approximately six months.

3) 30 inch pipeline from the Johnson Valley Booster Pump Station to the 5 MG Warren Vista water storage reservoir, 24 inch pipeline from Warren Vista Reservoir to Hi Desert Water District & Joshua Basin Water District Turnouts to groundwater recharge areas.

- The Oro Grande Wash Pipeline Project is currently designed to deliver up to 3,000 AFY to recharge areas in the Alto management subarea in the Mojave Basin. This is a conjunctive use recharge area designed for both a flood control facility and a groundwater recharge facility.

- The Mojave River Pipeline Project is designed to deliver up to 45,000 AFY to various recharge areas north of the Aqueduct, such as Hodge, Lenwood, Barstow, Daggett/Yermo and Newberry Springs in the Centro & Baja management sub areas.

- The facilities for the Silverwood Lake Dam have been utilized in the past to release up to 20,000 AFY to the upper Mojave River groundwater basin in the Alto management area.

In addition to the SWP delivery facilities, MWA has a potable water delivery system that pumps water from groundwater wells in the recharge areas in the Alto subbasin to retail potable water providers in the Alto subbasin.

- The R³ Project is designed to deliver imported supplemental groundwater recovered (pumped) from the recharge areas in the upper Mojave River Area to Hesperia, Victorville, Apple Valley, and Adelanto. MWA is moving imported supplemental supplies from the groundwater recharge areas to pumping depressions in these various water agencies’ service area through in-lieu of pumping. This allows groundwater basins in the Alto management subarea to recover as water is pumped from the recharge area along the upper Mojave River groundwater basin.

**Project Purpose and Need**

In the past, groundwater pumping in the Este Subarea has exceeded the safe yield of the basin. As a result of this legacy over-pumping the Este subarea has experienced severe historical groundwater declines and aquifer depletion. The Este Subbasin has no groundwater recharge facilities in which Replacement Obligation can be transported to recharge groundwater. Current Watermaster projections indicate that the Este subarea has no immediate need to recharge groundwater with Replacement water. However, the 2015 UWMP does project future Este production to be in excess of the groundwater basin’s safe yield.
A groundwater recharge facility in the Este Subbasin would provide the ability to pre-deliver and store in the groundwater basin imported SWP supplemental supplies in anticipation of future increases in groundwater pumping to meet future Watermaster replacement obligations.

To date, none of the IDM participants (except HDWD) served by the Morongo Basin Pipeline require their maximum contractual amounts, and MWA does not deliver water at the maximum capacity of the Morongo Basin Pipeline facilities. Therefore, there is excess capacity in the Morongo Basin Pipeline Facilities that is not being fully utilized. MWA will continue to deliver imported SWP water to the IDM participants via the Morongo Pipeline using the IDM contract capacities while the contract is in effect. MWA intends to continue to deliver SWP water to the IDM participants via the Morongo Basin Pipeline after the IDM agreement is no longer in effect, as stated in Resolution 961-12.

Because the allocation to MWA varies, it is anticipated that there will be years that MWA recharges in Lucerne and years when there is no water delivered to the Lucerne recharge facility. In any event, MWA will be able to deliver full IDM contractual capacities to IDM participants even with the installation of the Lucerne recharge basin utilizing unutilized capacity along with the capacity owned by MWA through the IDM Agreement.

Therefore, the Lucerne groundwater recharge area would be supplied by imported supplemental SWP supply from MWA’s contracted SWP supplies with DWR (85,800 AF) using available capacity in the Morongo Basin Pipeline. The anticipated groundwater recharge capacity of the Lucerne groundwater recharge area is approximately 500 AFY.

This new Lucerne groundwater recharge area is proposed to be located on a 5-acre parcel, of which 2 acres are currently only used for the Lucerne Valley Booster Pump Station on the Morongo Basin Pipeline. The SWP water will be transported through a portion of the Morongo Basin Pipeline via gravity flow from the Aqueduct Turnout to Lucerne Valley Pump Station. The Lucerne Valley Pump Station will be modified with a new outlet and meter to release SWP water into the new recharge area, which will be located on the existing 5-acre parcel. No pumping is required for delivery of water to this proposed recharge area.

With the addition of a groundwater recharge area at the Lucerne Valley Pump Station, MWA will be utilizing the facility flow capacities it owns and operates from the Aqueduct turnout to the Lucerne Valley Pump Station plus any unused capacity not being utilized for deliveries to the Morongo Basin.

Groundwater recharge at this location will facilitate MWA’s court-ordered responsibility (through the Mojave Basin Adjudication of importing supplemental water and recharging this supply into the groundwater basin) to replace water pumped from the groundwater basin that exceeds the Mojave Basin Adjudication-determined FPA allowance of the subarea.

**SECTION 2 – REGULATORY FRAMEWORK**

The MWA has identified that Lucerne Valley Groundwater Recharge Project meets the California Environmental Quality Act (CEQA) Guidelines Section 15378 definition of a Project. CEQA Guidelines Section 15378 defines a Project as the following:

(a) "Project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.

In accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21000-21177), this Initial Study has been prepared to determine potentially significant impacts upon the environment resulting from the construction, operation and maintenance of The Lucerne Valley Groundwater Recharge...
Project (hereinafter referred to as the "Project" or “proposed Project”). In accordance with Section 15063 of the State CEQA Guidelines, this Initial Study is a preliminary analysis prepared by the MWA as Lead Agency to inform the Lead Agency decision makers, other affected agencies, and the public of potential environmental impacts associated with the implementation of the proposed Project.

Organization of the Initial Study

The Initial Study is organized as follows:

Introduction: Provides the regulatory context for the review along a brief summary of the CEQA process.

Project Information: Provides fundamental Project information, such as the Project description, Project location and figures.

Lead Agency Determination: Identifies environmental factors potentially affected by the Project and identifies the Lead Agency's determination based on the initial evaluation.

Mitigated Negative Declaration: Prepared when a determination can be made that no significant environmental effects will occur because revisions to the Project have been made or mitigation measures will be implemented which will reduce all potentially significant impacts to less than significant levels.

Mitigation Measures: Identifies objectives, criteria, and specific procedures to administer the SBVWCD’s responsibilities under CEQA.

Evaluating Environmental Impacts: Provides the parameters the MWA uses when determining level of impact.

CEQA Checklist: Provides an environmental checklist and accompanying analysis for responding to checklist questions.

References: Includes a list of references and various resources utilized in preparing the analysis.

SECTION 3 - DETAILED PROJECT DESCRIPTION

The MWA proposes to construct an approximate 3-acre groundwater recharge area on vacant land within its existing 5-acre Lucerne Valley Booster Pump Station property. The pump station is part of the Morongo Basin Pipeline. The recharge area will be developed by constructing multiple 3-foot to 5-foot high berms in varying configurations as needed to manage flow and percolation rates into the ground. The berming patterns will change based on operational factors. The berms are used to cause the water being delivered to this site to spread out over the largest surface possible to gain the largest amount of percolation into the ground. The depth of water behind a berm is anticipated to vary from 18 inches to just a few inches. The flow rate of SWP water being delivered to the site will match the percolation rate into the ground as no SWP water will flow off the recharge area site. It is anticipated that approximately 500 AFY can be recharged into the groundwater basin at this site.

Water will be delivered via gravity flow through the Morongo Basin Pipeline Facilities from the turnout in the SWP Aqueduct to the Lucerne Valley Booster Pump Station site. Currently, approximately 20 to 80 cfs typically flows from the aqueduct to the Rock Springs/Deep Creek outlets and approximately 12 cfs typically continues to flow through this pipeline from the Rock Springs/Deep Creek Outlets, bypassing the booster pump.
station at the Lucerne Facility, where it travels east to the Johnson Valley Booster Pump Station. The water is then pumped through the Johnson Valley booster pumps where it continues east and south to the Winters Road Turnout and 5 million gallon (MG) Warren Vista reservoir. From the reservoir, water flows to the south at current rates that vary between 8 and 12 cfs eventually reaching the Warren Valley, HDWD, and Joshua Tree groundwater recharge areas.

The proposed Project will add a turnout (6-inch to 10-inch diameter) along the existing pipeline at the Lucerne Valley Booster Pump Station to allow approximately 1 cfs to flow to the proposed recharge area. It is anticipated that the site will allow percolation of SWP water into the ground at approximately 2 ft per day. It is anticipated that approximately 1 acre of the recharge area will be in use at any one time, thereby allowing a total of approximately 500 AFY to be recharged into the groundwater basin.

**Project Location**

The project is located at the existing Lucerne Valley Pump Station, located at 37776 Foothill Road, Lucerne Valley, Assessor Parcel Number 044-90-8319 (Figure 2). The project is located in the southwest quarter of Section 13, Township 4 North, Range 1 East, San Bernardino Baseline and Meridian. It is depicted on the United States Geological Survey (USGS) **Cougar Buttes, California** (1994) 7.5-minute topographic quadrangle. Currently, the 5-acre parcel only contains the pump station and ancillary equipment, which occupies only approximately 2 of the 5 acres. The remainder of the parcel is vacant, native area. Only a portion of the site surrounding the pump station contains an all-weather gravel parking area.

The entire parcel is surrounded by a chain link fence, and locked gates provide access to the parcel.

**Construction Methods**

Construction/operations equipment would be transported from the MWA’s operations center, located at 7620 Deep Creek Road, Apple Valley, approximately 21 miles to the Lucerne Valley pump station property. The anticipated general route from the Operation’s office would be north on Deep Creek Road, east on Bear Valley Road, east on State Route (SR) 18 to SR-247, traveling east on SR-247, to Camp Rock Road, traveling south on Camp Rock Road to Foothill Road, then east for approximately 1 mile on Foothill Road. All roads in the anticipated route are paved, except for the 1-mile portion of Foothill Road.

Construction equipment includes:

- 1 Backhoe
- 1 Track mounted hydraulic excavator/Dozer
- 1 Water truck

The initial work on-site is estimated to occur over one month, between the hours of 7 am and 4 pm. Work will likely take place during the spring, summer or fall months, typically between March and November.

The number of construction personnel will vary based on the work for the project that is completed that day. It is anticipated that the Project will utilize three employees daily over the one-month construction period.

All construction equipment will be staged and stored within the all-weather gravel parking area of the facility during construction and on-going routine maintenance. It is assumed that the equipment will need fuel and servicing. The following types of wastes are considered hazardous: petroleum products, palliatives, and solvents to service the heavy equipment. There may be additional wastes on the site that are considered hazardous. It is
assumed that the operations will be in compliance with the requirements set forth by the Hazardous Materials Division of the San Bernardino County Fire Department and the US EPA.

This project is a groundwater recharge project and as such SWP water is discharged onto the site where it then surface flows slowly through the site. The berming patterns are designed to slow the water velocity down (decreasing or eliminating erosion) and spread the water over a larger surface area to increase percolation. All of this construction in its designed operation in effect are measures that will also mitigate sediment movement by decreasing storm water flow velocities of storm water falling on the site itself (decreasing or eliminating erosion) and allowing more and better percolation of the rain water into the ground. During storm events on site sheet surface flows will flow through the berming pattern areas operating like sediment basins which are located throughout the site. When SWP water is not being recharged onto the site (site is not in use) natural drainage courses will be maintained by breaching any berming crossing the natural drainage. No groundwater recharge operations will occur during storm events. Storm flows which occasionally enter the recharge area site from off the property will be allowed to flow through the site similar to pre project conditions. This will be done by removing or breaching any portion of berms which cross the natural drainage. In addition to the above designed and operating features, other erosion and sediment control measures will be employed, as needed, to prevent downstream dispersal of sediments during and following Project-related activities. These measures may include sediment basins, gravel bags, silt fences, geo-bags, or gravel and geotextile fabric berms, erosion control blankets, coir rolls, jute net, and straw bales. The use of erosion control materials potentially harmful to wildlife species, including monofilament netting (erosion control matting) or similar material, will not be employed.

The lubricants and fuel will be handled in the construction staging area on the site access entry driveway.

**Construction Components**

Specifically, a combination of excavating & grading equipment would be used to construct the new turnout and to grade 1-5 feet existing native soil to build up natural soil berms in various configurations throughout the 3-acre recharge area.

Modifications will be made to the pump station pipeline to install valves, controls, and a turnout pipe to the new recharge area.

**Construction Avoidance and Minimization Measures**

**Construction General Permit Order 2009-0009-DWQ.** The State Regional Water Quality Control Board requires dischargers whose projects disturb one (1) or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

**Rule 403 – “Fugitive Dust” - Mojave Air Quality Management District.** This rule requires that fugitive dust not leave the property line.

**Operations and Maintenance**

The MWA plans to operate the new recharge Area by periodic grading of the percolation areas between berms, as needed to enhance percolation, and to maintain berms. Berm configuration may change periodically depending on the amount of water planned for recharge or to rotate percolation areas into and out of service.
SECTION 4 - ENVIRONMENTAL CHECKLIST FORM

1. Project Title: Lucerne Valley Groundwater Recharge Project

2. Lead Agency Name: Mojave Water Agency
   Address: 13846 Conference Center Drive
   Apple Valley, CA 92307

3. Contact Person: Darrell Reynolds, Director of Engineering
   Mojave Water Agency
   dreynolds@mojavewater.org
   Phone Number: (760) 946-7000

4. Project Location: Lucerne Valley
   37776 Foothill Road, Lucerne Valley
   Topographic Quad (USGS 7.5°): Cougar Buttes, California (1994)
   Topographic Quad Coordinates: SW1/4 Section 13, T4N, R1E
   Latitude: 34.430006° N, Longitude: -116.838792°W

6. General Plan Designation: Agriculture – San Bernardino County Lucerne Valley Planning Area

7. Zoning: Agriculture - San Bernardino County Lucerne Valley Planning Area

8. Project Description Summary:

The MWA proposes to construct an approximate 3-acre groundwater recharge basin on its existing 5-acre Lucerne Valley Pump Station property to recharge approximately 500 AFY. The recharge basin will have 3-foot to 5-foot high berms in varying configurations within the recharge area as needed to manage flow and recharge rates. The proposed groundwater recharge area would be located on 3 acres of vacant land, on a 5-acre parcel currently only used for the Lucerne Valley Pump Station that services the Morongo Basin Pipeline.

The proposed Project will add a turnout (6” – 10” diameter) along the existing pipeline at the Lucerne Valley Pump Station to allow approximately 1 cubic foot per second (cfs) to flow to the proposed recharge area. It is anticipated that the site will percolate SWP water into the ground at approximately 2 feet per day (fpd) and 1 acre of the recharge area will be in use allowing a total of approximately 500 AFY to be recharged into the Lucerne Valley area of the Este Subbasin. The Este Subbasin currently has no other SWP groundwater recharge facilities.

Water will be delivered via gravity flow through the Morongo Basin Pipeline Facilities from the turnout in the State Water Project (SWP) Aqueduct to the Lucerne Valley Pump Station site. No pumping is required for delivery of water to this proposed recharge area. With the addition of a groundwater recharge area at the Lucerne Valley Pump Station, MWA will be utilizing the existing facility flow capacities it owns and operates from the Aqueduct turnout to the Lucerne Valley Pump Station plus any unused capacity not being utilized for deliveries to the Morongo Basin.

The imported supplemental SWP supply would come from MWA’s contracted SWP supplies with the Department of Water Resources (85,800 AF). The SWP water will be transported through a portion of the Morongo Basin Pipeline facilities (from the Aqueduct Turnout to Lucerne Valley Pump Station). The Morongo Basin Pipeline facilities currently transports imported supplemental SWP water from the California Aqueduct to
the Alto sub area and to the Morongo Basin subarea and is being paid for through an agreement referred to as the IDM agreement. This IDM Agreement will no longer be in effect once the bonds are paid off (anticipated to be 2023). This IDM agreement also established pipeline capacity ownership and a maximum delivery of 7,257 AFY (1/7 of 50,800 AF of MWA SWP contract amount) to MWA, High Desert Water District (HDWD), Bighorn-Desert View Water Agency (BDVWA), HDWD, and San Bernardino County Service Area 70 (CSA 70). These delivery requirements will no longer be in effect once the bonds are paid off. Ownership and operation of the Morongo Basin Pipeline Facilities is currently MWA and will remain MWA facilities and operation once the Bonds are paid off and the IDM agreement is no longer in effect. On October 11, 2012, MWA adopted Resolution 961-12. This resolution declares the intent of the MWA is to have the capacity in the Morongo Basin Pipeline Project remain with the IDM project participants for beneficial use for lands located within the IDM project boundaries.

Currently, approximately 20-80 cubic feet per second (cfs) flows from the aqueduct to the Rock Springs/Deep Creek outlets then approximately 12 cfs typically continues to flow through this pipeline from the Rock Springs/Deep Creek Outlets, it bypasses the booster pump station at the Lucerne Facility, where it travels east to the Johnson Valley Pump Station. The water is then pumped through the booster pumps where it continues east and south to the 5 million gallons (MG) Warren Vista reservoir and the Ames Rechee recharge area delivering typically 60 AFY to BHDVWD. From the reservoir, water flows to the south at current rates that vary between 8-12 cfs eventually reaching the Warren Valley and Joshua Tree groundwater recharge areas, typically delivering 500 AFY to JBWD and 4,000 AFY to HDWD.

10. Surrounding land uses and setting (Briefly describe the project’s surroundings)

The Project area is generally surrounded by vacant land with a well-defined graded maintenance road network, or land that is utilized for agriculture or mining. Some residences also exist to the north. More specifically:

| North          | Vacant desert                  |
| South         | Single residence approximately 500 feet from the existing pump station |
| East          | Vacant desert, and one residence approximately 1,000 feet from the existing pump station |
| West          | Vacant desert and Dallas Avenue approximately 500 feet from the existing pump station |

11. Lead Agency Discretionary Actions:

Discretionary actions that may be taken by the Lead Agency include, but are not limited to, the following:

- Award contract for project
- Purchase SWP water to be predelivered to this groundwater basin.

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

- **Work within City/County limits.** The Project area is located entirely within the limits of the unincorporated area of San Bernardino County. However, because the MWA is also a public water agency, not subject to the County jurisdiction, no County permits are required.

- **Construction Compliance – Stormwater Discharge.** Construction projects that disturb 1 acre of land or more are required to obtain coverage under the NPDES General Permit for Construction Activities (General Construction Permit), which requires the applicant to file a notice of intent (NOI) to discharge stormwater and to prepare and implement a SWPPP. The SWPPP includes an overview of the Best Management Practices (BMPs) that would be implemented to prevent soil erosion and
discharge of other construction-related pollutants that could contaminate nearby water resources. The MWA will prepare a SWPPP for the project if the disturbance area exceeds 1 acre.

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

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

Applicable Native American tribes were consulted about the project. Written requests for comments were sent to the tribal representatives on January 4, 2018 to the following based on tribes who have expressed interest in commenting on MWA projects in the local area:

- Lee Clauss, MS, RPA, Director-CRM Department, San Manuel Band of Mission Indians 26569 Community Center Drive Highland, CA 92346.

Jessica Mauck, Cultural Resources Analyst for the San Manuel Band of Mission Indians (SMBMI) responded on January 16, 2018 that the tribe had no concerns with the project’s implementation, as planned, at this time. However, SMBMI requested that mitigation measures certain be made a part of the project/permit/plan conditions. The requested mitigation measures are incorporated in the applicable analysis sections of this document.
ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project as indicated by the checklist on the following pages.

- Aesthetics
- Biological Resources
- Greenhouse Gas Emissions
- Land Use / Planning
- Population / Housing
- Transportation / Traffic
- Agriculture and Forestry Resources
- Cultural Resources
- Hazards & Hazardous Materials
- Mineral Resources
- Public Services
- Utilities / Service Systems
- Air Quality
- Geology / Soils
- Hydrology & Water Quality
- Noise
- Recreation
- Mandatory Findings of Significance
DETERMINATION (To be completed by the Lead Agency)

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

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

Prepared by: Shay Lawrey  
 Jericho Systems, Inc. 

August 1, 2018  
Date 

Signature:  
Mojave Water Agency 

August 1, 2018  
Date
EVALUATING ENVIRONMENTAL IMPACTS:

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

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

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

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

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

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

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

9) The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance.
I. AESTHETICS:
Would the project:

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Have a substantial adverse effect on a scenic vista?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>c) Substantially degrade the existing visual character or quality of the site and its surroundings?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

SUBSTANTIATION: (Check □ if project is located within a view-shed of any Scenic Route listed in the General Plan):

Environmental Setting

The existing Lucerne Valley Booster Station exists on 37776 Foothill Road, Lucerne Valley, approximately 500 feet east of Dallas Avenue. This area is a remote area of Lucerne Valley, primarily surrounded by vacant desert on the north, west and east, and a single residence approximately 500 feet from the existing pump station. The recharge basin will be constructed in the vacant area immediately adjacent, and at the back of the existing pump station. The recharge area will be constructed at and below grade, with berms to be less than 5 feet high.

Impact Analysis

a) Have a substantial adverse effect on a scenic vista?

No Impact. The CEQA Guidelines do not provide a definition of what constitutes a “scenic vista” or “scenic resource” or a reference as to from what vantage point(s) the scenic vista and/or resource, if any, should be observed. However, a scenic vista can generally be defined as a viewpoint from a public vantage that provides expansive views of a highly-valued landscape for the benefit of the general public. Common examples include undeveloped hillsides, ridgelines, and open space areas that provide a unifying visual backdrop to a developed area. Scenic resources are those landscape patterns and features that are visually or aesthetically pleasing and that contribute affirmatively to the definition of a distinct community or region such as trees, rock outcroppings, and historic buildings.

The Project will be located at and below grade behind an existing pumping facility and will not be generally visible from Foothill Road or any of the other adjacent roadways. As such, the project will not alter the existing visual character of the area. None of the proposed activities would have a substantial adverse effect on any scenic vista because the site is not a scenic vista, and the Project area surroundings do not afford a vantage point where the Project can be publicly viewed.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
No Impact. There are no state scenic highways located within the Project Area, nor are there any scenic highways in the vicinity that will have views of the Project area. Therefore, the Project will not damage any scenic resources within or adjacent any scenic state highway. There will be no impact to trees or rock outcroppings, or historic buildings within a state scenic highway.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant. The Project is to create a recharge area by berming with native materials in a vacant area of a parcel that is surrounded by vacant land, and which cannot be seen from public areas. The berms will be made of native materials, will be less than 5 high, and the Project cannot be viewed from public areas. Therefore, there will be no substantial degradation in the existing visual character of the site.

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

No Impact. The project does not propose to install lighting, and all work will be conducted during the daytime hours. Therefore, there will be no impact to this criterion.
II. AGRICULTURE AND FORESTRY RESOURCES:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

<table>
<thead>
<tr>
<th>Impact Description</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>b) Conflict with existing zoning for agricultural use or a Williamson Act contract?</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>d) Result in the loss of forest land or conversion of forest land to non-forest use?</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

SUBSTANTIATION: (Check □ if project is located in the Important Farmlands Overlay):

**Environmental Setting**

Even though the Project activities will occur within land zoned by the County of San Bernardino as Agricultural, the Project activities will occur within 3 acres of a 5-acre parcel utilized as a pumping station for the Morongo Basin Pipeline. There are no farmlands or forest lands in the Project area.
Impact Analysis

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

No Impact. The Project Site was not identified within the survey limits of California Department of Conservation, Farmland Mapping and Monitoring Important Farmland Finder. No land under Williamson Act Contract occurs at the Project Site and no impacts will occur.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact. As discussed above, no land on or near the project site is currently under agricultural production, nor are any parcels under a Williamson Act contract. Therefore, no impact is anticipated from the construction and operation of the proposed Project.

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

No Impact. Forest land is defined in Public Resources Code 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.” The Project site is zoned Agriculture. Implementation of the proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production because these designations do not occur at the Project site. No impact is identified.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. There is no forest land in the Project area. Therefore, there is no impact.

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

No Impact. Implementation of the proposed Project would not result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. Therefore, there is no impact to this criterion.
<table>
<thead>
<tr>
<th>III. AIR QUALITY:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Conflict with or obstruct implementation of the applicable air quality plan?</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Expose sensitive receptors to substantial pollutant concentrations?</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>e) Create objectionable odors affecting a substantial number of people?</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

SUBSTANTIATION: (Discuss conformity with the Mojave Desert Air Quality Management Plan, if applicable):

**Environmental Setting**

The Project Site is located in the Mojave Desert Air Basin (MDAB). The Mojave Desert Air Quality Management District (MDAQMD) has jurisdiction over air quality issues and regulations within the MDAB. To assist local agencies to determine if a project’s emissions could pose a significant threat to air quality, the MDAQMD has prepared *the California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, August 2016*. The air and dust emissions from construction of the proposed project were evaluated and compared to the MDAQMD standards and evaluated against the most recent thresholds applicable.

Air quality is determined primarily by the types and amounts of contaminants emitted into the atmosphere, the size and topography of the local air basin and the pollutant-dispersing properties of local weather patterns. When airborne pollutants are produced in such volume that they are not dispersed by local meteorological conditions, air quality problems result. Dispersion of pollutants in the MDAB is influenced by periodic temperature inversions, persistent meteorological conditions and the local topography. As pollutants become more concentrated in the atmosphere, photochemical reactions occur, producing ozone and other oxidants.

Air emissions from the project are subject to federal, State and local rules and regulations implemented through provisions of the federal Clean Air Act, California Clean Air Act and the rules and regulations of the California Air Resources Board (CARB) and MDAQMD. Under the provisions of the federal and California Clean Air Acts, air quality management districts with air basins not in attainment of the air quality standards are required to prepare an Air Quality Management Plan (AQMP). An AQMP establishes an area-specific program to control existing and proposed sources of air emissions so that the air quality standards may be attained by an applicable target date.
The federal Clean Air Act and California Clean Air Act were established in an effort to assure that acceptable levels of air quality are maintained. These levels are based upon health-related exposure limits and are referred to as National Ambient Air Quality Standards (NAAQS) and as applicable the California Ambient Air Quality Standards (CAAQS). The ambient air quality standards establish maximum allowable concentrations of specific pollutants in the atmosphere and characterize the amount of exposure deemed safe for the public. The primary and secondary ambient air quality standards are shown in Table 3. Primary federal standards reflect levels of air quality deemed necessary by the federal Environmental Protection Agency (EPA) to provide an adequate margin of safety to protect public health. Areas that meet the standards are designated attainment and if found to be in violation of primary standards are designated as nonattainment areas. Secondary standards reflect levels of air quality necessary to protect public welfare from known or anticipated adverse effects of a pollutant.

The USEPA and the CARB have designated portions of the District as nonattainment for a variety of pollutants, and some of those designations have an associated classification. Table 4 lists these designations and classifications. The MDAQMD has adopted attainment plans for a variety of nonattainment pollutants.

MDAQMD regulates emissions from stationary sources through the permitting process and requires permits to Construct/Operate for all stationary equipment with the potential to release air contaminants. The project will not process any material on-site. Construction equipment/diesel equipment must meet requirements of the CARB’s off-road diesel vehicles regulations to reduce diesel pollutants. Operations will be required to comply with MDAQMD Rules 401 (limiting visible emissions from exhaust); 402 (avoid nuisance emissions); 403 (prohibits visible dust from crossing property lines); and 403.2 (requirements for controlling fugitive dust).
### Table 3

**State and Federal Ambient Air Quality Standards**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>California Standards¹</th>
<th>Federal Standards²</th>
<th>Secondary³,⁶</th>
<th>Method⁷</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ozone (O₃)⁸</strong></td>
<td>1-Hour</td>
<td>0.09 ppm (180 µg/m³)</td>
<td>--</td>
<td>Same as Primary Standard</td>
<td>Ultraviolet Photometry</td>
</tr>
<tr>
<td></td>
<td>8-Hour</td>
<td>0.07 ppm (137 µg/m³)</td>
<td>0.070 ppm (137 µg/m³)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Respirable Particulate Matter (PM₁₀)⁹</strong></td>
<td>24-Hour</td>
<td>50 µg/m³</td>
<td>150 µg/m³</td>
<td>Same as Primary Standard</td>
<td>Inertial Separation and Gravimetric Analysis</td>
</tr>
<tr>
<td></td>
<td>Annual Arithmetic Mean</td>
<td>20 µg/m³</td>
<td>Gravimetric or Beta Attenuation</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Fine Particulate Matter (PM₂.₅)⁹</strong></td>
<td>24-Hour</td>
<td>---</td>
<td>35 µg/m³</td>
<td>Same as Primary Standard</td>
<td>Inertial Separation and Gravimetric Analysis</td>
</tr>
<tr>
<td></td>
<td>Annual Arithmetic Mean</td>
<td>12 µg/m³</td>
<td>Gravimetric or Beta Attenuation</td>
<td>12 µg/m³</td>
<td>15 µg/m³</td>
</tr>
<tr>
<td><strong>Carbon Monoxide (CO)</strong></td>
<td>1-Hour</td>
<td>20 ppm (23 mg/m³)</td>
<td>35 ppm (40 mg/m³)</td>
<td>Non-Dispersive Infrared Photometry (NDIR)</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>8-Hour</td>
<td>9.0 ppm (10 mg/m³)</td>
<td>9 ppm (10 mg/m³)</td>
<td>--</td>
<td>Non-Dispersive Infrared Photometry (NDIR)</td>
</tr>
<tr>
<td></td>
<td>8-Hour (Lake Tahoe)</td>
<td>6 ppm (7 mg/m³)</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Nitrogen Dioxide (NO₂)¹⁰</strong></td>
<td>1-Hour</td>
<td>0.18 ppm (339 µg/m³)</td>
<td>100 ppb (188 µg/m³)</td>
<td>--</td>
<td>Gas Phase Chemiluminescence</td>
</tr>
<tr>
<td></td>
<td>Annual Arithmetic Mean</td>
<td>0.030 ppm (57 µg/m³)</td>
<td>0.053 ppb (100 µg/m³)</td>
<td>Same as Primary Standard</td>
<td>--</td>
</tr>
<tr>
<td><strong>Sulfur Dioxide (SO₂)¹¹</strong></td>
<td>1-Hour</td>
<td>0.25 ppm (655 µg/m³)</td>
<td>75 ppd (196 µg/m³)</td>
<td>--</td>
<td>Ultraviolet Fluorescence, Spectrophotometry (Pararosaniline Method)</td>
</tr>
<tr>
<td></td>
<td>3-Hour</td>
<td>--</td>
<td>0.5 ppm (1300 µg/m³)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>24-Hour</td>
<td>0.04 ppm (105 µg/m³)</td>
<td>0.14 ppm (for certain areas)¹⁰</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Annual Arithmetic Mean</td>
<td>--</td>
<td>0.030 ppm (for certain areas)¹⁰</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Lead¹²,¹³</strong></td>
<td>30-day average</td>
<td>1.5 µg/m³</td>
<td>--</td>
<td>--</td>
<td>High Volume Sampler and Atomic Absorption</td>
</tr>
<tr>
<td></td>
<td>Calendar Quarter</td>
<td>--</td>
<td>1.5 µg/m³ (for certain areas)¹²</td>
<td>Same as Primary Standard</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Rolling 3-Month Average</td>
<td>--</td>
<td>0.15 µg/m³</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Visibility-Reducing Particles¹⁴</strong></td>
<td>8-Hour</td>
<td>See footnote 14</td>
<td>Beta Attenuation and Transmittance through Filter Tape</td>
<td>No</td>
<td>Federal Standards</td>
</tr>
<tr>
<td><strong>Sulfates</strong></td>
<td>24-Hour</td>
<td>25 µg/m³</td>
<td>Ion Chromatography</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Hydrogen Sulfide</strong></td>
<td>1-Hour</td>
<td>0.03 ppm (42 µg/m³)</td>
<td>Ultraviolet Fluorescence</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Vinyl Chloride¹²</strong></td>
<td>24-Hour</td>
<td>0.01 ppm (26 µg/m³)</td>
<td>Gas Chromatography</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

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 equal 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 μg/m³ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over 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 μg/m³ to 12.0 μg/m³. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 μg/m³, as was the annual secondary standard of 15 μg/m³. The existing 24-hour PM10 standards (primary and secondary) of 150 μg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 μg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.
Table 4

<table>
<thead>
<tr>
<th>Ambient Air Quality Standard</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eight-hour Ozone (Federal, 2015)</td>
<td>Expected non-attainment, classification to be determined</td>
</tr>
<tr>
<td>Ozone (State)</td>
<td>Non-attainment; classified Moderate</td>
</tr>
<tr>
<td>PM$_{10}$ (Federal)</td>
<td>Non-attainment; classified Moderate (portion of MDAQMD in Riverside County is attainment)</td>
</tr>
<tr>
<td>PM$_{2.5}$ (Federal)</td>
<td>Unclassified/attainment</td>
</tr>
<tr>
<td>PM$_{2.5}$ (State)</td>
<td>Non-attainment (portion of MDAQMD outside of Western Mojave Desert Ozone)</td>
</tr>
<tr>
<td>PM$_{10}$ (State)</td>
<td>Non-attainment</td>
</tr>
<tr>
<td>Carbon Monoxide (State and Federal)</td>
<td>Unclassified/Attainment</td>
</tr>
<tr>
<td>Nitrogen Dioxide (State and Federal)</td>
<td>Attainment/unclassified</td>
</tr>
<tr>
<td>Sulfur Dioxide (State and Federal)</td>
<td>Attainment/unclassified</td>
</tr>
<tr>
<td>Lead (State and Federal)</td>
<td>Unclassified/Attainment</td>
</tr>
<tr>
<td>Particulate Sulfate (State)</td>
<td>Attainment</td>
</tr>
<tr>
<td>Hydrogen Sulfide (State)</td>
<td>Unclassified (Searles Valley Planning Area is non-attainment)</td>
</tr>
<tr>
<td>Visibility Reducing Particles (State)</td>
<td>Unclassified</td>
</tr>
</tbody>
</table>

Source: MDAQMD CEQA and Federal Conformity Guidelines, August 2016

Impact Analysis

a) Conflict with or obstruct implementation of the applicable air quality plan?

**Less Than Significant.** MWA is proposing to construct a new Lucerne groundwater recharge area on 3 acres of a 5-acre parcel; 2 acres are currently used for MWA’s Lucerne Valley Pump Station on the Morongo Pipeline. The SWP water will be transported through a portion of the Morongo Basin Pipeline via gravity flow from the Aqueduct Turnout to Lucerne Valley Pump Station. The Lucerne Valley Pump Station will be retrofitted with a new outlet and meter that will be constructed to release SWP water into the new recharge area, which will be located on the existing 5-acre parcel. No pumping is required for delivery of water to this proposed recharge area. The recharge basins are to be constructed with three to five-foot high berms. No additional facilities are proposed; impacts associated with the development of the recharge area would be temporary construction-related. Following completion of the 3-acre recharge Area, no significant long-term operational impacts are anticipated other than occasional maintenance berming work (2-3 times a year depending on rain storms and quantities of SWP flows), scarification or sediment removals to increase percolation rates (1 time a year depending on flow amounts), invasive species/weed control maintenance (1 time a year based on plant growth) Therefore no permanent long-term changes to existing air quality would result and the project would not conflict with Mojave Desert Air Quality Management Plan. No impact is anticipated.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

**Less Than Significant (b,c).** The proposed improvement would require excavation, and other activities such as pushing material into berms and backfilling. Material is to be balanced onsite.

The project’s construction activities were screened for emission generation using MDAQMD guidelines and the MD Management District’s (MDAQMD) MDAQMD Off-Road Mobile Source Emissions Factors (2018) Table. This table is used to generate emissions estimates for development projects. The criteria pollutants screened for
included: reactive organic gases (ROG), nitrous oxides (NOx), carbon monoxide (CO), and particulates (PM10 and PM2.5). Two of these, ROG and NOx, are ozone precursors.

Construction earthwork emissions are considered short-term, temporary emissions and were calculated based on the estimated construction parameters listed below. The resulting emission levels as compared to MDAQMD thresholds are shown in Table 3.

Typical daily equipment:

- 2 Misc. Construction Equipment
- 1 Dozer (track mounted hydraulic excavator).
- 1 Loader/Backhoe
- 1 Water

<table>
<thead>
<tr>
<th>Source</th>
<th>ROG</th>
<th>NOx</th>
<th>CO</th>
<th>PM10</th>
<th>PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misc Construction Eq.</td>
<td>1.0</td>
<td>7.2</td>
<td>5.7</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Rubber Tired Dozer</td>
<td>1.9</td>
<td>14.6</td>
<td>7.1</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Loader/Backhoe</td>
<td>0.4</td>
<td>2.7</td>
<td>2.9</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Water Truck</td>
<td>0.5</td>
<td>3.6</td>
<td>2.8</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Totals (lbs/day)</td>
<td>3.8</td>
<td>28.0</td>
<td>18.5</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>MDAQMD Threshold</td>
<td>137</td>
<td>137</td>
<td>548</td>
<td>82</td>
<td>82</td>
</tr>
<tr>
<td>Significant</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

As shown in Table 5, construction emissions would not exceed MDAQMD thresholds. Therefore, less than significant impacts is anticipated. Operational maintenance activities are anticipated to be negligible (anticipated every 5 to 10 years).

Compliance with MDAQMD Regulation II and Rules 402 and 403

Although the Proposed Project does not exceed MDAQMD thresholds, the contractor will be required to comply with all applicable MDAQMD rules and regulations as the MDAB is in non-attainment status for ozone and suspended particulates (PM10 and PM2.5 (state)). To limit dust production, the contractor must comply with Rules 402 nuisance and 403 fugitive dust, which require the implementation of Best Available Control Measures (BACM) for each fugitive dust source. This would include, but not be limited to the following BACMs, as included in the MDAQMD Rules and Regulations:

1. The Project proponent shall ensure that any portion of the site to be graded shall be pre-watered prior to the onset of grading activities.

   I. The Project proponent shall ensure that watering of the site or other soil stabilization method shall be employed on an on-going basis after the initiation of any grading activity on the site.

   II. The Project proponent shall ensure that all earth handling activities are suspended when winds exceed 25 miles per hour.

Exhaust emissions from vehicles and equipment and fugitive dust generated by on-site activities, would slightly increase NOx and PM10 levels in the area. Although the Proposed Project would not exceed MDAQMD thresholds, the Applicant would be required to implement the following conditions as required by MDAQMD:
2. All heavy equipment must be tuned and maintained to the manufacturer’s specification to maximize efficient burning of vehicle fuel.

3. The applicant shall maintain and effectively utilize and schedule on-site equipment in order to minimize exhaust emissions from truck idling.

4. The applicant shall comply with all existing and future CARB and MDAQMD regulations related to diesel-fueled trucks and equipment, which may include among others: (1) meeting more stringent emission standards; (2) retrofitting existing engines with particulate traps; (3) use of low sulfur fuel; and (4) use of alternative fuels or equipment.

5. MDAQMD rules for diesel emissions from equipment and trucks are embedded in the compliance for all diesel-fueled engines, trucks, and equipment with the statewide CARB Diesel Reduction Plan. These measures will be implemented by CARB in phases with new rules imposed on existing and new diesel-fueled engines and truck and equipment fleets.

Compliance with existing rules and regulations and conditions as listed above would result in project emissions being less than significant.

\( d \) Expose sensitive receptors to substantial pollutant concentrations?

**Less Than Significant.** Sensitive receptors are facilities used by a population group that is more susceptible to the effects of air pollutants. Sensitive receptors include residences, schools, playgrounds, child-care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The nearest sensitive receptor to the Project Site are residences located approximately 1,000 feet to the south and east, respectively. As shown in Table 5, construction impacts are not anticipated to exceed MDAQMD thresholds and operational maintenance activities are anticipated to be negligible. With implementation of BACMs, emissions of dust or vehicle exhaust fumes associated with construction would be short-term and would not expose sensitive receptors to substantial pollutant concentrations. A less than significant impact is identified, and no mitigation measures are proposed.

\( e \) Create objectionable odors affecting a substantial number of people?

**No Impact.** Project construction equipment would generate odors from the combustion of fuels. However, the determination of an impact from Project-generated odors is dependent on a number of variables including:

- Nature of the odor source;
- Frequency of odor generation (e.g., daily, seasonal, activity-specific);
- Intensity of the odor (e.g., concentration);
- Wind direction (e.g., upwind or downwind); and
- Sensitivity of the receptor.

As shown in Table 5, construction impacts are not anticipated to exceed MDAQMD thresholds of significance; operational maintenance activities are anticipated to be negligible and would not emit significant odors. Impacts associated with emission odors would be temporary during Project construction activities. Due to the rural nature of the project area, it is anticipated that the short-term odors generated by construction equipment would dissipate rapidly. Impacts would be less than significant.
### IV. BIOLOGICAL RESOURCES:
Would the project:

<table>
<thead>
<tr>
<th></th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td></td>
<td></td>
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<td>X</td>
</tr>
<tr>
<td>c)</td>
<td></td>
<td></td>
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<td>X</td>
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<tr>
<td>d)</td>
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<td></td>
<td>X</td>
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<td>e)</td>
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<td></td>
<td>X</td>
</tr>
<tr>
<td>f)</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**SUBSTANTIATION:** (☒ Check if project is located in the Biological Resources Overlay or Contains habitat for any species listed in the California Natural Diversity Database):

**Environmental Setting**

Jericho Systems, Inc (Jericho) performed a Biological Resources Assessment for the Project (Jericho, January 2018, Appendix A). The assessment consisted of a literature review and field surveys.

According to the literature review, three sensitive species have been documented to occur between 5 and 10 miles from the Project site:
- Mohave ground squirrel (*Xerospermophilus mohavensis*, [MGS]) listed under the California Endangered Species Act as a threatened species

- Desert tortoise (*Gopherus agassizii*) [DT], a state and federally-listed threatened species

- Burrowing owl (*Athene cunicularia*) [BUOW] a state and federal Species of Special Concern

The survey concluded that no sensitive species were found during survey. The subject parcel and survey buffer of 500 feet were surveyed by a qualified biologist, during good weather conditions, at an appropriate time in the day and time of year. Therefore, no limitations to the survey were identified. The existence of intact, properly installed exclusionary fencing will remain an effective barrier to prevent wildlife movement onto the site.

**Site Setting**

The local climatic conditions in the Lucerne Valley area are characterized by warm summers and cold winters with an average annual temperature is 64.5°F, ranging between 30-99°F. The rainy season begins in December and continues through March, with the quantity and frequency of rain varying from year to year. The average annual rainfall is approximately 7.34 inches. Hydrologically, the Project site is located within the Hydrologic Sub-Area (HSA 701.00), which comprises a 301,640-acre drainage area within the larger Blackhawk Canyon-Cougar Buttes Watershed (HUC 181001000302). Soils within the Project area consist of 100% Cajon Sand with 2-9% slopes (Figure 5). These soils are usually found in alluvial fans.

The project site is in the Western Mojave Basins Ecoregion which includes alluvial plains, fans, and bajadas of the major valleys lying between the scattered mountain ranges of the western Mojave low ranges and arid footslopes. Vegetation is typically dominated by creosote bush and white bursage, with areas of shadscale, four-wing saltbush, and, on some upper bajadas and fans, scattered Joshua trees. The Western Mojave Basins have little summer rainfall and typically lack species such as Mojave yucca and big galleta found more to the east. Drainage is internal to closed basins in the Mojave.

Larrea tridentate Shrubland Alliance, as classified by Keeler-Wolf, occurs in alluvial fans, bajadas, upland slopes, and minor intermittent washes. Soils associated with this alliance are well-drained. Typical plant species that occur in this shrubland alliance include *Acamptopappus shockleyi*, *Bebbia juncea*, *Ericameria teretifolia*, and *Ephedra californica*. Shrubs in this alliance rarely surpass three meters in height, and the herbaceous layer is open to intermittent, including seasonal annuals or perennial grasses.

The subject parcel is completely enclosed by fencing with exclusionary fencing attached which prevents sensitive ground dwelling species to enter the site. The habitat within the subject parcel creosote bush scrub with 30 percent vegetative cover. No mammals, reptiles or amphibians were observed during survey and none are expected to occur due to the existing fencing fitted with exclusionary fencing. Furthermore, no sensitive or state or federally listed as endangered or threatened species were identified within or adjacent to the project site. No burrows were found in the survey buffer that were of the appropriate size, shape or aspect for DT or BUOW. These species are not documented within three miles of the Project site according the databases.

**Jurisdictional Waters**

There were no drainages or water features determined to be jurisdictional identified on the Project site. Therefore, no regulatory permits will be required.
Jurisdictional Wetlands

Jurisdictional Wetlands

Jericho also assessed for indicators wetlands (presence of hydrophytic vegetation, staining, cracked soil, ponding, etc). Depressions/ponded areas where water appears likely to collect were also evaluated. Plant species were identified and given an indicator status as prescribed in the 2013 National Wetland Plant List (Arid West Region) (Lichvar, 2013). No jurisdictional wetlands were found in the project area (Jericho, January 2018).

Impact Analysis

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

Less Than Significant. Based on the biological resources study prepared for the project, three sensitive species have been documented to occur between 5 and 10 miles from the Project site: MGS, DT and BUOW. The subject parcel is completely enclosed by fencing with exclusionary fencing attached which prevents sensitive ground dwelling species to enter the site. Further, the site survey concluded that none of these sensitive species, and no other sensitive species were found during a field survey. Therefore, there is a less than significant impact.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. There are no riparian or other sensitive natural communities identified on the Project site based on the site survey (Appendix A). Therefore, there is no impact.

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

No Impact. There are no federally protected wetlands identified on the Project site based on the site survey (Appendix A). Therefore, there is no impact.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant with Mitigation Incorporated. The subject parcel is completely enclosed by fencing with exclusionary fencing attached which prevents sensitive ground dwelling species to enter the site. The existence of intact, properly installed exclusionary fencing will remain an effective barrier to prevent wildlife movement onto the site.

Construction will likely take place during the spring, summer or fall months, typically between March and November. Routine maintenance to reconfigure the berms will occur at various times of year depending on groundwater recharge needs and water availability.

Nestable vegetation occurs within and adjacent to the Project site. Pursuant to the Migratory Bird Treaty Act and California FGC, construction activities and/or the removal of any shrubs or any other potential nesting habitat should be conducted outside the avian nesting season to avoid impacts to nesting birds. The nesting season generally extends from February 1 through August 31, but can vary slightly from year to year based upon seasonal weather conditions.
Because construction could occur during the avian nesting season, Mitigation Measure BIO-1 would reduce the potential impact to nesting birds to less than significant. Mitigation measures are located at the end of this section.

**e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

**No Impact.** There are no local policies or ordinances that apply to biological resources on the Project site. Therefore, there is no impact.

**f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

**No Impact.** There is no Habitat Conservation Plan or other conservation plan that is applicable to the Project area. Therefore, there is no impact.

**Mitigation Measures:**

**BIO-1**

The project site shall be surveyed for nesting birds by a qualified avian biologist within three (3) days prior to initiating the construction activities. If active nests are found during the pre-construction nesting bird surveys, a Nesting Bird Plan (NBP) will be prepared and implemented. At a minimum, the NBP will include guidelines for addressing active nests, establishing buffers, monitoring, and reporting. The NBP will include a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be determined by the biologist, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist has determined the young birds have successfully fledged and a monitoring report has been submitted reviewed and approved by the MWA.
V. CULTURAL RESOURCES:

Would the project:

<table>
<thead>
<tr>
<th></th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
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<tr>
<td>b)</td>
<td></td>
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<tr>
<td>c)</td>
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<td>X</td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

SUBSTANTIATION: (Check if project is located in the Cultural or Paleontologic Resources overlays or cite results of cultural resource review)

Environmental Setting

Cultural resources consultant BRC Consulting, Inc completed a cultural resources records search, an intensive-level pedestrian field survey, Sacred Lands File Search through the Native American Heritage Commission, and vertebrate paleontological resources assessment to identify prehistoric or historic-period resources within one mile of the Project site (BRC, January 3, 2018). The report is on file with the MWA. The records searches revealed that three cultural resource studies have taken place within a one-mile radius of the Project site, but no surveys have occurred on the Project site. The records searches identified several historic sections of Hwy 247 and historical road markers exist along Hwy 247, approximately 1 mile from the project site.

During the field survey, BCR Consulting archaeologists identified one previously unrecorded cultural resource and recorded it using California Department of Park and Recreation (DPR) 523 forms. The resource consisted of a historic-period refuse concentration, primarily from the 1930s and 1940s, but the trash scatter was not recommended eligible for the California Register of Historical Resources (California Register) and as such is not a "historical resource".

Impact Analysis

a) **Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5'?**

No Impact. Because there are no historical resources in the Project area, there will be no adverse change in a historical resource.

b) **Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5'?**

**Less Than Significant with Mitigation Incorporated.** Because there are no archaeological resources in the Project area, there will be no change in an archaeological resource. However, in the event an unanticipated resource is discovered, implementation of Mitigation Measure CUL-1 is incorporated to ensure any potential impact will be less than significant. Mitigation measures are located at the end of this section.
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant with Mitigation Incorporated. Because no unique geologic features are present on site, the likelihood of paleontological resources is low. Therefore, there will be a less than significant impact to paleontological resources. However, in the event an unanticipated resource is discovered, implementation of Mitigation Measure CUL-1 is incorporated to ensure any potential impact will be less than significant. Mitigation measures are located at the end of this section.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant with Mitigation Incorporated. There are no known human remains within the vicinity of the project site, and no conditions exist that suggest human remains are likely to be found on the project site. It is not anticipated that implementation of the project would disturb human remains, including those interred outside of formal cemeteries. However, ground-disturbing activities, such as grading or excavation, have the potential to disturb human remains. If human remains are found, those remains would require proper treatment, in accordance with applicable laws. The Native American Graves Protection and Repatriation Act (NAGPRA) includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American cultural items on federal and tribal lands, and penalties for noncompliance and illegal trafficking. State of California Public Resources Health and Safety Code Section 7050.5-7055 describes the general provisions regarding human remains, including the requirements if any human remains are accidentally discovered during excavation of a site. As required by state law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission and consultation with the individual identified by the Native American Heritage Commission to be the “most likely descendant.” If human remains are found during excavation, excavation must stop in the vicinity of the find any area that is reasonably suspected to overlie adjacent remains until the County Coroner has been called out by local law enforcement, and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains. Mitigation Measure CUL-2 would ensure the proper management of human remains if encountered on the project site. With the implementation of Mitigation Measures CUL-2, impacts would be less than significant. Mitigation measures are at the end of this section.

Mitigation Measures:

CUL-1 In the event that evidence of archaeological or paleontological resources are unearthed during construction activities, work in the immediate vicinity of the find will be stopped and a qualified archaeologist will be contacted to assess the find and recommend appropriate mitigation. No disturbance shall occur in the vicinity of the find until the site is evaluated by the archaeologist and the find is recorded or treated per the recommendations of the qualified archaeologist.

CUL-2 In the event that human remains are discovered, there shall be no disposition of such human remains, other than in accordance with the procedures and requirements set forth in California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. These code provisions require notification of the County Coroner and the Native American Heritage Commission, who in turn must notify those persons believed to be most likely descended from the deceased Native American for appropriate disposition of the remains. Excavation or disturbance may continue in other areas of the project site that are not reasonably suspected to overlie adjacent remains or archaeological resources.
### VI. GEOLOGY AND SOILS:

Would the project:

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 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.</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>• Strong seismic ground shaking?</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>• Seismic-related ground failure, including liquefaction?</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>• Landslides?</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>b) Result in substantial soil erosion or the loss of topsoil?</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

### SUBSTANTIATION: (☐ Check if project is located in the Geologic Hazards Overlay District):

**Environmental Setting**

**Geology**

The Project is located within the portion of the Lucerne Valley that is situated in the southern margin of the western Mojave Desert. This area of the Lucerne Valley is generally between the north piedmont of the San Bernardino Mountains and the Cougar Buttes inselberg. Structurally and geomorphically, Lucerne Valley is a closed desert basin that is flanked to the south by the San Bernardino Mountains and ringed to the north by highlands in the Mojave Desert, including the Granite Mountains, Sidewinder Mountain, Stoddard Ridge, the Ord Mountains, and Cougar Buttes. The basin has evolved in conjunction with uplift of the San Bernardino Mountains and with displacement on right-lateral faults of the Mojave Desert. Climatic fluctuations and tectonism have led to an evolving landscape and have generated a wide variety of Quaternary surficial deposits associated with various landforms in and around Lucerne Valley (Powell and Matti, 2000).
Geomorphically, Lucerne Valley is a bolson with a central playa fed by alluvial fans emanating from the surrounding bedrock mountain ranges. Intervening between the principal fans are broad piedmont slopes covered by thin veneers of Pleistocene and Holocene deposits. These veneers, including slopewash and alluvium, mantle pediments beveled across tilted Pliocene and early Pleistocene sedimentary strata onto underlying igneous and metamorphic rocks. These surfaces are most prominent on Cougar Buttes, a granite inselberg encircled by a pediment apron, but are present on the piedmonts of all the ranges around Lucerne Valley, including the San Bernardino Mountains (Powell and Matti, 2000).

Seismic Hazards

The Helendale Fault zone exists approximately 5 miles south and west of the Project site. The Helendale Fault Zone extends approximately 75 kilometers from the Kramer Hills in the north to Cushenbury Springs at the southern end of Lucerne Valley. The Helendale fault last produced a magnitude 5.4 earthquake on February 22, 2003 that was located 3.2 kilometers north of Big Bear City at a depth of about 6 kilometers (Lancaster, June 7, 2016).

Soils

Soils in the Project area are classified as young alluvial fan feeder wash deposits from the middle or late Holocene period (Powell and Matti, 2000). No liquefaction hazards exist in the Project area (County of San Bernardino, May 30, 2007).

In 2017 the MWA conducted a percolation test of the soils at the Project site to determine the suitability of the soils for recharge (Merrill Johnson, May 5, 2017). Subsurface conditions were explored by drilling three test 8-inch diameter borings within the proposed vacant area behind the Pump Station site. One boring was drilled to a depth of 10 feet, one to 40 feet, and one to 150 feet below the existing ground surface. The test borings revealed crudely stratified layers of loose to medium dense sand with silt and gravel (SP-SM) and sand with gravel (SP) to the depths explore (150 feet). The percolation testing results revealed that the on-site soils would perform suitably for water recharge.

Impact Analysis

a) 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? Refer to Division of Mines and Geology Special Publication 42.

- Strong seismic ground shaking?

- Seismic related ground failure, including liquefaction?

- Landslides?

Less Than Significant. The Helendale fault exists within the Project region that has the capability of producing at least a magnitude 5.4 or higher earthquake, but the Project site is not located along an Alquist-Priolo earthquake fault. The project area has not been identified as being subject to landslides. The site is underlain by
young alluvium, and groundwater elevations vary, but identified as approximately 150 feet below the surface in the Project area.

The Project is to construct a water spreading area for the purpose of groundwater recharge. No habitable structures or other structures that would expose people or other structures to potential adverse effects involving an earthquake rupture, strong seismic ground shaking, liquefaction or landslides.

The exposure does not have a substantial adverse effect because it is in a remote location and there is no risk to life or property if the berming fails. Therefore, there is a less than a significant impact.

b) Result in substantial soil erosion or the loss of topsoil?

**Less Than Significant With Mitigation Incorporated.** Construction will require regrading a vacant area behind the existing Lucerne Valley pump station to approximately 3 feet deep for berming. The project will utilize soil balancing to construct berms in various configurations. Therefore, there is no net loss of the topsoil, nor does the maintenance result in substantial soil erosion.

No significant excavation would occur that would result in erosion or the loss of native topsoil. Stockpiling soil is not anticipated. However, in the event soils would need to be stockpiled, implementation of **Mitigation Measure GEO-1** is recommended. Mitigation measures are located at the end of this section.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?

**Less Than Significant.** The Project is located within young alluvium where groundwater is anticipated to be approximately 150 feet below ground surface, and no potential for liquefaction has been identified. Therefore, the impact of this criterion is less than significant.

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

**No Impact.** The young alluvium found within the project area has low to no shrink-swell potential (expansive soils). Neither the testing performed by the MWA nor San Bernardino County General Plans identify the Project area as having expansive soil. The Project is not designed for human habitation; therefore, there is no impact.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

**No Impact.** The project does not propose the use of septic tanks or alternative wastewater disposal systems. Therefore, there is no impact.

**Mitigation Measure:**

**GEO-1**

The MWA will develop an Erosion Control Report (ECR) that will identify the Best Management Practices (BMPs) for managing any stockpiled materials on site. The BMPs may include but not be limited to the following:

- Locate stockpiles away from drainage courses, drain inlets or concentrated flows of storm water.
- For wind erosion control, apply water or other dust palliative to stockpiles. Smaller stockpiles may be covered as an alternative.
- Place bagged materials on pallets under cover.
- During the rainy season, non-active soil stockpiles will be covered with heavy plastic and the stockpile contained within a temporary perimeter sediment barrier, such as berms, dikes, silt fences, or sandbag barriers. A soil stabilization measure may be used in lieu of cover.
- During the non-rainy season prior to the onset of rain, the stockpile should either be covered or protect them with temporary perimeter sediment barriers.
- Year-round, active soil stockpiles will be protected with temporary linear sediment barriers prior to the onset of rain.
- The main haul road will be graded and watered at least once per day, or as often as necessary to control dust as required by the Mojave Desert Air Quality Management District (MDAQMD).
VII. GREENHOUSE GAS EMISSIONS:
Would the project:

<table>
<thead>
<tr>
<th>a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
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</tbody>
</table>

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

<table>
<thead>
<tr>
<th></th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
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<tbody>
<tr>
<td></td>
<td>X</td>
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</tbody>
</table>

Background

According to CEQA Guidelines section 15064.4, when making a determination of the significance of greenhouse gas emissions, the “lead agency shall have discretion to determine, in the context of a particular project, whether to (1) use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use.” Moreover, CEQA Guidelines section 15064.7(c) provides that “a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts” on the condition that “the decision of the lead agency to adopt such thresholds is supported by substantial evidence.”

San Bernardino County GHG Reduction Plan

In September 2011, the County of San Bernardino adopted a Greenhouse Gas Emissions (GHG) Reduction Plan (September 2011) (“GHG Plan”). The GHG Plan presents a comprehensive set of actions to reduce the County’s GHG emissions to 15% below current levels (2007 levels) by 2020, consistent with the AB 32 Scoping Plan. GHG emissions impacts are assessed through the GHG Development Review Process (DRP) by applying appropriate reduction requirements as part of the discretionary approval of new development projects. Through its development review process, the County will implement CEQA requiring new development projects to quantify project GHG emissions and adopt feasible mitigation to reduce project emissions below a level of significance. A review standard of 3,000 metric tons of CO2 equivalent (MTCO2e) per year is used to identify projects that require the use of Screening Tables or a project-specific technical analysis to quantify and mitigate project emissions. Note that the MDAQMD has an annual threshold of 100,000 tons of CO2 per year.

Impact Analysis

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant. Per CEQA guidelines, new project emissions are treated as standard emissions, and air quality impacts are evaluated for significance on an air basin or even at a neighborhood level. Greenhouse gas emissions are treated differently, in that the perspective is global, not local. Therefore, emissions for certain types of projects might not necessarily be considered as new emissions if the project is primarily population driven. Many gases make up the group of pollutants that are believed to contribute to global climate change. However, three gases are currently evaluated: Carbon dioxide (CO2), Methane (CH4), and Nitrous oxide (N2O). South Coast Air Quality Management District (SCAQMD) provides guidance methods and/or Emission Factors. MDAQMD allows the use of this methodology.
A screening threshold of 3,000 MTCO$_2$e per year has been adopted by the County as potentially significant to global warming. Utilizing the SCAQMD Off-Road Model - Mobile Source Emission Factors model, 2018 Emission Factors (http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html). The modeled GHG emission levels associated with the Proposed Project are shown in Table 4 and are below the County threshold.

Due to the estimated GHG emissions from the Proposed Project being less than the County screening threshold, effects on climate change are anticipated to be less than significant.

Table 6
Greenhouse Gas Emissions (lbs/day)

<table>
<thead>
<tr>
<th>Equipment</th>
<th>CO$_2$</th>
<th>CH$_4$</th>
<th>N$_2$O*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misc Construction Eq.</td>
<td>1,968.0</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Rubber Tired Dozer</td>
<td>1,912.0</td>
<td>0.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Loader/Backhoe</td>
<td>534.4</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Water Truck</td>
<td>984.0</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Total lbs. per day</td>
<td>5,401</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTCO$_2$e Per Year</td>
<td>113.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>County Screening Threshold</td>
<td>3,000 MTCO$_2$e</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significant (Yes/No)</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Assumes 2-month working schedule.
Source: SCAQMD Off-Road Mobile Source Emissions Factors (2018);
* California Climate Action Registry General Reporting Protocol, 2009I, Tables C.7-C.9

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant. There are no existing GHG plans, policies, or regulations that have been adopted by CARB or MDAQMD that would apply to the project’s type of emissions source. It is possible that CARB may develop performance standards for Project-related activities prior to Project construction. In this event, these performance standards would be implemented and adhered to, and there would be no conflict with any applicable plan, policy, or regulation; therefore, impacts would be less than significant.
VIII. HAZARDS AND HAZARDOUS MATERIALS:
Would the project:

<table>
<thead>
<tr>
<th></th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>b)</td>
<td>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?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>d)</td>
<td>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?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>e)</td>
<td>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?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>f)</td>
<td>For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>g)</td>
<td>Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>h)</td>
<td>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?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Environmental Setting

State and Federal databases were reviewed to identify hazardous waste facilities including Federal Superfund sites, State Response sites, Voluntary Cleanup sites, School Cleanup sites, Permitted Operating sites, Corrective Action sites, and Tiered Permit sites within or adjacent to the Project.

The Project Area is not designated as a high fire zone by the County of San Bernardino or CalFire.

There are no airports near the Project site.
Impact Analysis

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant. Some hazardous materials that could be used during the Project construction and operation and may include gasoline, diesel fuel, oil, solvents, and lubricants associated with heavy equipment and other vehicles used for construction and operations activities. These materials will be transported, used, and disposed of in accordance with applicable laws, regulations, and state and local protocols designed to protect the environment, workers, and the public. No acutely hazardous materials (as defined in Title 22 Cal. Code Regs. § 66260.10) will be used for the project. Therefore, potential impacts associated with the routine transport, use, or disposal of hazardous materials will be less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant With Mitigation Incorporated. Limited quantities of hazardous materials will be used during construction including gasoline, diesel fuel, oil, solvents, and lubricants associated with the heavy equipment and vehicles and used for operation and maintenance activities. Reasonably foreseeable upset and accident conditions may include minor spills and/or drips. However, MWA contractors and employees are trained to properly prevent and clean up minor spills, as well as familiar with protocols to manage larger spills should they occur. Therefore, the impact of risk of upset by a potential release of hazardous waste is less than significant due to the limited quantities used. However, to ensure less than significant impacts will occur, Mitigation Measure HAZ-1 and HAZ-2 will be implemented. Mitigation measures are located at the end of this section.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. There is no existing or proposed school within one-quarter mile of the Project site. Therefore, there is no impact.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The Project area has been a natural stream channel for decades. There are no sites that are included on a list of hazardous material sites compiled pursuant to Government Code 6596.5 in the construction area or adjacent to the construction area.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. There are no airports or airport plans within 2 miles of the Project site. Therefore, there is no impact.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. There are no private airstrips in the project area. Therefore, there is no impact.
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

**Less Than Significant.** The Project is located in a rural area. The main point of access is Foothill Boulevard. All equipment staging area and the construction will occur on the existing Lucerne Valley Pump Station site. Therefore, neither the Project nor the construction of the Project will physically interfere with any emergency response or evacuation plan. Therefore, the impact is less than significant.

h) 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?

**Less Than Significant With Mitigation Incorporated.** The Project Area is not classified by CalFire as being an area with a high fire danger. However, the Project is located in an area where low-lying native vegetation and ruderal vegetation exists coupled with moderate winds, and sparks from equipment may ignite vegetation. MWA staff is trained to manage these situations. A residence exists approximately 500 feet south of the Project site. Though there is a low risk of a fire from construction or operation, the high desert area typically experiences high winds. As such, **Mitigation Measure HAZ-3** is incorporated to ensure the potential risk is less than significant. Mitigation Measures are located at the end of this section.

**Mitigation Measure:**

**HAZ-1**  
The Department of Toxic Substances Control (DTSC) and San Bernardino County Fire Department Hazardous Materials Division shall be immediately notified in the event malodorous or discolored soils, liquids, containers, or other materials known or suspected to contain hazardous materials and/or contaminants are encountered during activities associated with the proposed project. Earthmoving activities in the vicinity of said material shall be halted until the extent and nature of the suspect material is determined by qualified personnel (as determined by the DTSC). The removal and/or disposal of any such contaminants shall be in accordance with all applicable local, State, and Federal standards.

**HAZ-2**  
In the event of any identification of or spill of hazardous materials and/or contaminants in the construction area, the party whose activity resulted in the spill or release shall notify the MWA of the location, extent, and nature of the spill or release. The MWA shall thereupon assess the depth to groundwater in the area of the release, and if it appears that groundwater tables are high enough to create a potential for exposure of the groundwater table to the spill or release, will modify its recharge operations as much as feasible to prevent groundwater table intersection with the identified spill or release.

**HAZ-3**  
During construction, all staging areas, welding areas, or areas slated for construction using spark-producing equipment will be cleared of dried vegetation or other material that could ignite. Spark arresting equipment shall be in good working order. MWA shall require all vehicles and crews working at the project site to have access to functional fire extinguishers at all times. In addition, construction crews are required to have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks. The contractor also shall provide a safety plan for the implementation of additional protocols when the National Weather Service issues a Red Flag Warning. Such protocols should address smoking and fire rules, storage and parking areas, use of gasoline-powered tools, use of spark arresters on construction equipment, road closures, use of a fire guard, fire suppression tools, fire suppression equipment, and training requirements.
IX. HYDROLOGY AND WATER QUALITY:
Would the project:

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Violate any water quality standards or waste discharge requirements?</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>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)?</td>
<td></td>
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<td>X</td>
</tr>
<tr>
<td>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 onsite or offsite?</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>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 which would result in flooding onsite or offsite?</td>
<td></td>
<td></td>
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<td>X</td>
</tr>
<tr>
<td>e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?</td>
<td></td>
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<td>X</td>
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<tr>
<td>f) Otherwise substantially degrade water quality?</td>
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<td>X</td>
</tr>
<tr>
<td>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?</td>
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<td>X</td>
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<tr>
<td>h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?</td>
<td></td>
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<td>X</td>
</tr>
<tr>
<td>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?</td>
<td></td>
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<td></td>
<td>X</td>
</tr>
<tr>
<td>j) Inundation by seiche, tsunami, or mudflow?</td>
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<td>X</td>
</tr>
</tbody>
</table>

Environmental Setting

The Mojave Groundwater Basin is divided into five separate groundwater management “subareas,” based on hydrologic divisions defined by various hydrologic, geologic, engineering, and political considerations. The subareas are: 1) Oeste; 2) Este; 3) Alto; 4) Centro, and 5) Baja. The Project site is located in the Este subarea, at the existing Lucerne Valley pump station, supplied by the Morongo Basin Pipeline.
The MWA also assists the groundwater management of the Morongo Basin/Johnson Valley Area through separate agreements with water service providers in the Morongo Basin. Under its current contract with DWR, MWA can deliver up to 85,800 acre-feet per year (AFY) of SWP water to retail suppliers of the adjudicated subareas of the Mojave Basin, although the actual water quantity allotment varies annually based on SWP available supply and weather conditions in the State for that year. In addition to providing SWP water to the communities within the adjudicated subareas of the Mojave Basin, the MWA also provides imported supplemental SWP water to the Morongo Basin/Johnson Valley area, outside of the Mojave Basin, via the Morongo Basin Pipeline.

The Morongo Basin Pipeline bond is anticipated to be paid off in 2023. As such, the delivery agreement to the Morongo Basin as identified in the ID-M Agreement will expire. However, on October 11, 2012, MWA adopted Resolution 961-12 that declares that when the ID-M Agreement expires, it is the intent of the MWA that the Morongo Basin Pipeline ownership will remain with the MWA and the capacity in the Morongo Basin Pipeline will remain with the ID-M project participants for beneficial use for lands located within the ID-M project boundaries.

MWA also operates recharge facilities in all subareas of the Mojave Basin Area adjudication, except in the Oeste and Este subareas where no such recharge facilities exist. The Oeste subarea primarily serves the Phelan area, and the Este subarea serves the Lucerne Valley area.

The MWA is proposing to construct a groundwater recharge facility to serve the Este subarea. The recharge facility will be located at its existing Lucerne Valley Pump Station, located on Foothill Road, just east of the intersection of Dallas Avenue, approximately 0.5 mile south of Hwy 247 in Lucerne Valley. The Lucerne Valley Pump Station is a part of the existing Morongo Basin Pipeline that currently transports imported supplemental SWP water to groundwater recharge areas in the Morongo Basin.

**Impact Analysis**

a) *Violate any water quality standards or waste discharge requirements?*

**Less Than Significant.** Construction consists of the regrading of native material to form berms and a series of percolation areas to support groundwater recharge on vacant land behind an existing groundwater pumping station. All construction equipment will be staged and stored within the all-weather gravel parking area of the facility during construction and on-going routine maintenance. Therefore, there will be a less than significant impact.

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)?*

**Less Than Significant.** The Project is to provide groundwater recharge in a Mojave groundwater basin subarea that currently does not have facilities to allow groundwater recharge of SWP water. The MWA also provides imported supplemental SWP water to the Morongo Basin/Johnson Valley area, outside of the Mojave Basin, via the Morongo Basin Pipeline, which will also supply the new recharge area. The Morongo Basin Pipeline bond is anticipated to be paid off in 2023. As such, the delivery agreement to the Morongo Basin as identified in the IDM Agreement will expire. However, the MWA has adopted a resolution that declares its intent that the Morongo Pipeline ownership will remain with the MWA and the capacity in the Morongo Basin Pipeline will remain with the IDM project participants for beneficial use for lands located within the IDM project boundaries. Further, that the MWA will continue to supply the Morongo/Johnson Valley area. Therefore, the Project will have a less than significant impact.
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 onsite or offsite?**

**Less Than Significant.** The Project will be constructed on a vacant lot with relatively flat topography behind the existing pump station. The project will be constructed in a manner that will reduce off-site erosion. Therefore, there is a less than significant impact.

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 which would result in flooding onsite or offsite?**

**Less Than Significant.** Refer to Response c), above. Less than significant impacts would occur.

e) **Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?**

**No Impact.** The Project activities are self-contained and do not rely on municipal storm water drainage systems, and no water drains to the municipal system. Therefore, there is no impact to this criterion.

f) **Otherwise substantially degrade water quality?**

**Less Than Significant.** The Project will promote groundwater recharge in a portion of the Mojave groundwater basin area that has no groundwater recharge facilities. The activity will not degrade water quality because it is designed to improve groundwater recharge.

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?**

**No Impact.** No housing construction is proposed as part of the Project. As a result, construction and operation of the Project would not place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Map or Federal Flood Insurance Map. Additionally, no other permanent habitable structures are proposed to be developed onsite. All construction equipment used for processing and hauling would be temporary and removed from the site when not in use. Therefore, no impacts would occur under this criterion as a result of the Project.

h) **Place within a 100-year flood hazard area structures which would impede or redirect flood flows?**

**No Impact.** The project is not within a 100-year flood hazard area.

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?**

**No Impact.** According to the County of San Bernardino Hazards Overlay Map, the Project site is not located within a dam inundation area. Therefore, there is no impact.

j) **Inundation by seiche, tsunami, or mudflow?**

**No Impact.** There are no natural features near the project site that would impact the site by a seiche, tsunami or mudflow. Therefore, there is no impact.
## X. LAND USE AND PLANNING:
Would the project:

<table>
<thead>
<tr>
<th></th>
<th>Potentially Significant Impact</th>
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<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Physically divide an established community?</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?</td>
<td></td>
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<td>X</td>
</tr>
<tr>
<td>c) Conflict with any applicable habitat conservation plan or natural community conservation plan?</td>
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</tbody>
</table>

### Environmental Setting

The Project occurs within the unincorporated area of the Lucerne Valley in San Bernardino County. The property is surrounded on all sides by vacant land, with the nearest residences located approximately 500 feet south and 1,000 feet east of the Project site.

### Impact Analysis

a) *Physically divide an established community?*

**No Impact.** The Project will construct a groundwater recharge basin on an existing site. Therefore, there is no impact.

b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

**No Impact.** The Project will construct a groundwater recharge basin on a parcel where water service facilities exist. The site is currently zoned Agriculture within the San Bernardino County Lucerne Valley Planning Area. Therefore, there is no impact.

c) *Conflict with any applicable habitat conservation plan or natural community conservation plan?*

**No Impact.** There is no habitat conservation plan or natural community conservation plan applicable to the existing site. Therefore, there is no impact.
XI. MINERAL RESOURCES:
Would the project:

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
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<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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?</td>
<td>X</td>
<td></td>
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</tbody>
</table>

Environmental Setting

The California Department of Conservation classifies lands into Mineral Resource Zones (MRZs) based on the known or inferred mineral resource potential of that land. The classification process is based solely on geology, without regard to land use or ownership. The primary goal of mineral land classification is to help ensure that the mineral resource potential of land is recognized and considered in the land use planning process. The MRZ categories are described as follows:

MRZ-1: Areas where available geologic information indicates there is little likelihood for the presence of significant mineral resources.

MRZ-2a: Areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present. Areas classified MRZ-2a contain discovered mineral deposits that are either measured or indicated reserves as determined by such evidence as drilling records, sample analysis, surface exposure and mine information. Land included in the MRZ-2a category is of prime importance because it contains known economic mineral deposits.

MRZ-2b: Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified MRZ-2b contain discovered mineral deposits that are either inferred reserves as determined by limited sample analysis, exposure, and past mining history or are deposits that presently are sub-economic. Further exploration work and/or changes in technology or economics could result in upgrading areas classified MRZ-2b to MRZ-2a categories.

MRZ-3a: Areas containing known mineral occurrences of undetermined mineral resource significance. Further exploration work within these areas could result in the reclassification of specific localities into MRZ-2a or MRZ-2b categories.

MRZ-3b: Areas containing inferred mineral occurrences of undetermined mineral resource significance. Land classified MRZ-3b represents areas in geologic settings that appear to be favorable environments for the occurrence of specific mineral deposits. Further exploration work could result in the reclassification of all or part of these areas into the MRZ-3a category or specific localities into the MRZ-2a or MRZ-2b categories.

MRZ-4: Areas of no known mineral occurrences where geologic information does not rule out either the presence or absence of significant mineral resources.
The Department of Conservation identifies that the distinction between the MRZ-1 and MRZ-4 categories is important for land use considerations. Further, that the MRZ-4 classification does not imply that there is little likelihood for the presence of mineral resources, but rather there is a lack of knowledge regarding mineral occurrence, and further exploration could result in the reclassification of land in MRZ-4 areas to MRZ-3 or MRZ-2 categories.

The Project area is part of the State’s Mineral Land Classification within Southwestern San Bernardino County: The Big Bear Lake-Lucerne Valley Area, California and is identified as within MRZ-4.

**Impact Analysis**

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?**

**Less Than Significant.** The Project will regrade natural sediments in a manner that will create a recharge basin on-site, reusing all on-site materials. Mining is not proposed as a Project Activity. The proposed Project would not result in the loss of availability of mineral resources that would be of value to the region and the residents of the state. Therefore, there will be less than significant impacts.

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?**

**Less Than Significant.** There are no locally-important mineral resources identified in the Project area. The project will create a groundwater recharge Area using the existing materials on site, and there will be no import or export of materials. Therefore, there will be no loss of availability of the mineral resources in project area.
<table>
<thead>
<tr>
<th>XII. NOISE:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project result in:</td>
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</tr>
<tr>
<td>a) 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?</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?</td>
<td></td>
<td></td>
<td>X</td>
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</tbody>
</table>

Environmental Setting

Noise is generally described as unwanted sound. Sound is a physical disturbance in a medium, such as air, that is capable of being detected by the human ear. Sound waves in air are caused by variations in pressure above and below the static value of atmospheric pressure. The unit of sound pressure ratio to the faintest sound detectable to a person with normal hearing is called a decibel (dB) on a logarithmic scale. The “pitch” (high or low) of the sound is a description of frequency, which is measured in Hertz (Hz). Most common environmental sounds are a composite of frequencies. A normal human ear can usually detect sounds within frequencies from 20 to 20,000 Hz. However, humans are most sensitive to frequencies in the range of 500 to 4,000 Hz.

Certain frequencies are given more “weight” during assessment because human hearing is not equally sensitive to all frequencies of sound. The A-weighted decibel (dBA) scale corresponds to the sensitivity range for human hearing. Noise levels capable of being heard by humans are measured in dBA. A noise level change of 3 dBA or less is barely perceptible to average human hearing. However, a 5 dBA change in noise level is clearly noticeable. A 10 dBA change is perceived as a doubling or halving of noise loudness, while a 20 dBA change is considered a “dramatic change” in loudness.

Sound from a source spreads out as it travels away from the source, and the sound pressure level diminishes with distance. Individual sound sources are considered “point sources” when the distance from the source is large compared to the size of the source (e.g., construction equipment, and turbines). Sound from a point source radiates hemispherically, which yields a 6 dB sound level reduction for each doubling of the distance from the source. If the sound source is long in one dimension, the source is considered a “line source,” (i.e., roadways and
railroads). Sound from a line source radiates cylindrically, which typically yields a 3 dB sound level reduction for each doubling of the distance from the source.

The metrics for evaluating the community noise environment are based on measurements of the noise levels over a period of time. These metrics are used in order to characterize and evaluate the cumulative noise impacts. The Community Noise Equivalent Level (CNEL) represents a 24-hour A-weighted sound level average from midnight to midnight, where sound levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dB weighting, and nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dB weighting.

Noise standards typically apply to permanent activities. The recommended noise exposure levels are established for permanent noise sources and receptors where noise can be generated over a 24-hour period with penalties applied for permanent noise generated during the night time hours. Construction related noise is short term and generally considered a nuisance. Construction noise is generally not of sufficient magnitude that is considered health threatening.

The nearest residences exist approximately 500 feet south and 1,000 feet east of the project site.

**Impact Analysis**

a) 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?

**Less Than Significant.** The nearest residence is approximately 500 feet south of the proposed Project activities. In compliance with Section 83.01.080 of the County of San Bernardino’s Noise Ordinance, all grading and maintenance-related activities will be undertaken in between the hours of 7:00 a.m. and 7:00 p.m., except Sundays and Federal holidays. Therefore, noise generated by the heavy equipment will not violate County ordinances standards or requirements.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

**Less Than Significant.** It is anticipated that the proposed Project would not involve pile-driving activities typically associated with ground-borne vibration. The nearest sensitive receptors include the residential area located approximately 500 feet to the south and 1,000 feet to the east. Trucks and heavy equipment are anticipated to have low to no impact on the residences at that distance.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

**No Impact.** The Project is to develop a groundwater recharge area on an existing water booster pump station site. The Project components do not include the addition of pumps or other equipment that would generate additional noise on a permanent basis. The Project will not introduce new noise levels or generate a substantial increase in permanent noise. Noise associated with construction activities would be short-term and not represent an increase in permanent noise.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

**Less Than Significant.** The Project is to develop a groundwater recharge basin on an existing water booster pump station site. Noise associated with construction activities would be short-term and not represent an increase in permanent noise. Therefore, the impact is less than significant.
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. There are no airports within 2 miles or within the vicinity of the project. The airport operations will not expose construction personnel or residents in the area to unacceptable noise levels. Therefore, there is no impact.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. There are no private airstrips in the vicinity of the Project. Therefore, there is no impact.
XIII. POPULATION AND HOUSING:
Would the project:

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?</td>
<td>X</td>
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<tr>
<td>b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?</td>
<td>X</td>
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<tr>
<td>c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</td>
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</table>

Environmental Setting
The overall purpose of the Project is to provide a groundwater recharge facility where there is currently no facility. The project does not involve housing, or the construction of structures for housing.

Impact Analysis

a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

**No Impact.** The Project is to recharge the groundwater, which does not induce growth. Therefore, the Project does not indirectly induce an increase in population.

b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

**No Impact.** The Project will occur within the footprint of an existing water service facility, and does not require new or existing housing. The site is fenced and there are no homeless camps or other housing on the property, therefore, the proposed Project will not displace any housing, or require the construction of replacement housing.

c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

**No Impact.** The construction will be performed by existing MWA operations staff, therefore, the Project will not displace people or require the construction of new or replacement housing.
XIV. **PUBLIC SERVICES:**

<table>
<thead>
<tr>
<th>Public Services</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
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<tbody>
<tr>
<td>Fire protection?</td>
<td>X</td>
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<tr>
<td>Police protection?</td>
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<tr>
<td>Schools?</td>
<td>X</td>
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<tr>
<td>Recreation/Parks?</td>
<td>X</td>
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<tr>
<td>Other public facilities?</td>
<td>X</td>
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</table>

**Environmental Setting**

The Project is located in the County of San Bernardino, which provides public services to the area. All Project activities will occur within the footprint of the existing MWA facility.

**Impact Analysis**

*Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

- **a) Fire protection?**
- **b) Police Protection?**
- **c) Schools?**
- **d) Recreation/Parks?**
- **e) Other Services?**

**Less Than Significant.** The proposed project is not located within an area designated as a high fire risk. The possibility exists for a work-related injury, but this type of occurrence is considered to be rare, and therefore, not create a substantial need for fire protection in the area. The work does not impact schools, or cause the need for new schools. The project will not utilize parks or impact park lands. There are no other public services that would be impacted by this project. Therefore, the impact is less than significant.
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**Environmental Setting**

The Project activities will occur within the existing MWA water service facility property which is completely fenced. There is no recreation on site.

**Impact Analysis**

a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

**No Impact.** Implementation of the proposed Project does not include the development of residential or other land uses that would cause a substantial increase in the use of existing neighborhood and regional parks or other recreational facilities. Substantial physical deterioration of local recreational facilities is not anticipated as a result of the proposed Project. There is no impact to this criterion.

b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

**No Impact.** The proposed Project does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. There is no impact to this criterion.
### XVI. TRANSPORTATION / TRAFFIC:

Would the project:

<table>
<thead>
<tr>
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<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>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?</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>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?</td>
<td></td>
<td>X</td>
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<tr>
<td>c)</td>
<td>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?</td>
<td></td>
<td>X</td>
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<tr>
<td>d)</td>
<td>Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</td>
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<td>X</td>
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<td>e)</td>
<td>Result in inadequate emergency access?</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>f)</td>
<td>Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?</td>
<td></td>
<td>X</td>
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</table>

### Environmental Setting

Construction/operations equipment would be transported from the MWA’s operations center, located at 7620 Deep Creek Road, Apple Valley, approximately 21 miles to the Lucerne Valley pump station. The anticipated general route from the Operation’s office would be north on Deep Creek Road, east on Bear Valley Road, east on SR-18 to SR-247, traveling east on SR-247, to Camp Rock Road, traveling south on Camp Rock Road to Foothill Road, then east for approximately 1 mile on Foothill Road. All roads in the anticipated route are paved, except for the 1-mile portion of Foothill Road.

Major roadways to be used by the project to transport equipment are described as follows:

The state highways, SR-18 and SR-247 intersect within Lucerne Valley. SR-18 is a two-lane major highway that begins in Los Angeles County and extends east through the City of Victorville and the Town of Apple Valley to its junction with SR-247 in the community of Lucerne Valley. It provides access to Interstate 15 to the west and to the resort areas of the San Bernardino Mountains to the south.

- SR-247 (Old Woman Springs Road) provides access to Barstow to the north, and to the Morongo Valley area if followed east and then south. SR-247 is a two-lane major highway originates as an interchange...
with I-15 in the City of Barstow and extends south to its junction with SR-18 in the community of Lucerne Valley. From this point, SR-247 continues southeast through the communities of Land and Homestead Valley before terminating at its junction with SR-62 in the Town of Yucca Valley.

- Bear Valley Road is an east-west road classified by the Town of Apple Valley as a Major Divided Arterial that intersects with SR-18 east of the town limits. Between the eastern boundary of the town and Central Road it is a 2-lane undivided highway with occasional turn lanes, expanding to 3-lanes between Central Road and Quinnault Road, and then to a 4-lane divided roadway from Quinnault Road to Apple Valley Road. From there it becomes a 6-lane divided roadway and exits the town as it crosses the all-weather bridge over the Mojave River. Bear Valley is signalized at eight of its intersections: Jess Ranch Parkway, Reata Road, Apple Valley Road, an access road east of Apple Valley Road, Deep Creek Road, Kiowa Road, Navajo Road, and Central Road.

- Camp Rock Road is a two-lane major highway that extends northward approximately nine miles from its junction with SR-18, just north of the San Bernardino National Forest, through the community of Lucerne Valley to Granite Road. This facility then becomes a secondary highway and turns northeast, continuing an additional 15 miles to the Camp Rock Mine in the Rodman Mountains. The 2.25 mile portion of this roadway between Granite Road and North Side Road is paved with the remaining section continuing to Camp Rock Mine unpaved. Beyond this point, it becomes a dirt road linking Lucerne Valley with Daggett.

- Foothill Road is a two-lane roadway that begins at Willow Wells Avenue and extends eastward as an unpaved road to Trade Post Road. From Trade Post Road, this facility continues for one mile as a Crystal Creek Road. This facility is designated as a secondary highway from Custer Avenue to Crystal Creek Road.

The efficiency of a roadway is generally determined by assessing the roadway’s capacity, level-of-service, and average daily traffic volume. Public agencies typically assign Levels of Service (LOS) of roadways as between “A” and “F” with LOS A representing the best, free flow conditions, and LOS F indicates the worst conditions, and system failure. In general, the following descriptions apply to the qualitative levels described above: A” – free flow; “B” – reasonably free flow; “C” – stable flow; “D” – approaching unstable flow; “E” – unstable flow; and “F” – forced or breakdown flow (“gridlock”).

The San Bernardino County Lucerne Valley Community Plan describes acceptable levels of service as “A”, “B” and “C.” The Town of Apple Valley traditionally uses LOS C as its standard for acceptable roadway conditions (Terra Nova, August 2009).

All of the roadways proposed to be used to transport equipment within Lucerne Valley operate at Level of Service “A.” The segment of Bear Valley Road in Apple Valley (between Deep Creek Road and Kiowa Road) was identified in the Town of Apple Valley’s General Plan as “Approaching Capacity” (Terra Nova, August 2009).

**Impact Analysis**

*a) 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?*

**Less Than Significant.** The Project activities are not located on major roadways. The main access to the Project is off of Foothill Road.
Construction equipment will be transported on main roadways, all of which operate at acceptable levels of service. The Project activities will occur directly within the vacant property of the pump station. Therefore, the Project will not conflict with any applicable plan, ordinance, or policy that establishes the performance of the system. Since the Project does not create any inconsistency with applicable plans, ordinance or policy that establishes measures of effectiveness, there is a less than significant impact.

b) 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?

Less Than Significant. Construction activities may require that heavy equipment periodically use major roadways to access the pump station site. However, this will be periodic and not conflict with the congestion management program or significantly add to the existing traffic levels because few equipment and personnel are expected to be needed for a short period of time. Therefore, the project will not conflict with an applicable congestion management program. The impact is less than significant.

c) 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?

No Impact. There are no airports within the Project vicinity. All Project activities will occur at or below grade. The Project will not result in a change of air traffic patterns, or increase traffic levels or create a change in location that results in safety risk.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Project location is a vacant area of an existing pump facility, and not located on main roads or trails. The Project does not involve creating new roads or maintaining existing roads where there would be public access. Therefore, there is no impact.

e) Result in inadequate emergency access?

Less Than Significant. Construction equipment will utilize roadways to travel to and from the Project site. Transporting equipment will not block or create inadequate emergency access for public response. The existing dirt and paved roads are designed for general traffic and can accommodate the short-term equipment transport. Emergency vehicles would only respond to the Project site in the event of an injury or fire. Therefore, there is a less than significant impact.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. Project activities would occur in the vacant area of the existing pump station. The Project site and its access roads are not identified as public transit, bicycle or pedestrian facilities, and no work is planned for the roadways. Therefore, the Project not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities and there is no impact.
**XVII. TRIBAL CULTURAL RESOURCES:**

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
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<tbody>
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<td></td>
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</table>

   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.

**Environmental Setting**

BCR Consulting completed a cultural resources records search to identify prehistoric or historic-period resources within one mile of the Project site (BCR, January 2018). The BCR report identified that no notable cultural features were known to exit in the Project area throughout the historic period. Based on these considerations, the BCR research concluded that no “historic properties” or “historical resources” are present within or adjacent to the Project area. Native American input began on January 4, 2018 and concluded January 16, 2018 through the AB 52 consultation process.

**Impact Analysis**

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),

No Impact. There are no resources that have been identified as eligible for listing to the California Register of Historic Places. Therefore, there is no impact.

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.

Less Than Significant With Mitigation Incorporated. There are no resources supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. During AB-52 consultation, Jessica Mauck, Cultural Resources Analyst for the San Manuel Band of
Mission Indians (SMBMI) responded on January 16, 2018 that the tribe had no concerns with the project’s implementation, as planned, at this time. However, SMBMI requested that mitigation measures certain be made a part of the project/permit/plan conditions to ensure that potential Native American resources would be protected in the event of an unanticipated discovery. Therefore, Mitigation Measures TRC-1, TRC-2 and TRC-3 are incorporated to ensure that the potential impacts are less than significant.

**TRC-1** If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

**TRC-2** In the event that Native American cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, San Manuel Band of Mission Indians will be contacted if any such find occurs and be provided information and permitted/invited to perform a site visit when the archaeologist makes his/her assessment, so as to provide Tribal input.

**TRC-3** If significant Native American historical resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, an SOI-qualified archaeologist shall be retained to develop an cultural resources Treatment Plan, as well as a Discovery and Monitoring Plan, the drafts of which shall be provided to San Manuel Band of Mission Indians for review and comment.

a. All in-field investigations, assessments, and/or data recovery enacted pursuant to the finalized Treatment Plan shall be monitored by a San Manuel Band of Mission Indians Tribal Participant(s).

b. The Lead Agency and/or applicant shall, in good faith, consult with San Manuel Band of Mission Indians on the disposition and treatment of any artifacts or other cultural materials encountered during the project.
## XVIII. UTILITIES AND SERVICE SYSTEMS:

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) 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?</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) 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?</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) Comply with federal, state, and local statutes and regulations related to solid waste?</td>
<td>X</td>
<td>X</td>
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</tbody>
</table>

### Environmental Setting

The project is to grade a vacant portion of property at the Lucerne Valley pump station to create a recharge area.

### Impact Analysis

a) **Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.**

**No Impact.** The Project will not result in the generation of wastewater that will require treatment.

b) **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?**

**No Impact.** No structures requiring wastewater collection or treatment services would be developed as part of the proposed Project. The proposed Project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. There is no impact to this criterion.

c) **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?**

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**JERICHO SYSTEMS, INC.**

Page 63
No Impact. The proposed Project would not contribute to the need for additional storm drainage facilities. No impact is identified.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant. Construction activities may require water for some activities, including dust suppression. However, the MWA’s existing entitlements and resources would be adequate to support potential demand as it has historically. The Project would have sufficient water supplies to service construction needs, and no new or expanded entitlements would be needed.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant. The proposed Project will utilize a wastewater “porta potty” vendor to accommodate construction employees. Construction activities are anticipated to have very few employees and can be serviced with existing wastewater resources. The impact is less than significant.

f) Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant. Construction activities may generate small quantities of solid waste, inert materials, and green waste. All waste would be properly disposed of in accordance with federal, state, and local statutes and regulations. Therefore, the impact is less than significant.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. All solid waste generated by the Project during construction activities would be handled in accordance with all applicable Federal, State, and local statutes and regulations. No impacts would occur under this criterion.
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE:

<table>
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<tr>
<th>Potential Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact or Does Not Apply</th>
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</thead>
<tbody>
<tr>
<td>a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</td>
<td>X</td>
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<tr>
<td>b) Does the project have impacts that are individually limited, but cumulatively considerable? (&quot;Cumulatively considerable&quot; means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?</td>
<td>X</td>
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<tr>
<td>c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</td>
<td>X</td>
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SUBSTANTIATION:

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant With Mitigation. The project is to grade a vacant portion of property at the Lucerne Valley pump station to create a recharge area. The proposed Lucerne Valley Groundwater Recharge Project (Proposed Project) would primarily consist of construct an approximate 3-acre groundwater recharge basin on its existing 5-acre Lucerne Valley Pump Station property to recharge approximately 500 AFY. Specifically, a combination of excavating & grading equipment would be used to construct the new turnout and to grade 1-5 feet existing native soil to build up natural soil berms in various configurations throughout the 3-acre recharge area. Modifications will be made to the pump station pipeline to install valves, controls, and a turnout pipe to the new recharge area. The MWA plans to operate the new recharge Area by periodic grading of the percolation areas between berms, as needed to enhance percolation, and to maintain berms. Berm configuration may change periodically depending on the amount of water planned for recharge or to rotate percolation areas into and out of service.

The existing Lucerne Valley Pump Station is completely enclosed by fencing with exclusionary fencing attached which prevents sensitive ground dwelling species to enter the site. The habitat within the subject parcel creosote bush scrub with 30 percent vegetative cover. No mammals, reptiles or amphibians were observed during survey and none are expected to occur due to the existing fencing fitted with exclusionary fencing. Furthermore, no sensitive or state or federally listed as endangered or threatened species were identified within or adjacent to the project site.

Nestable vegetation occurs within and adjacent to the Project site. Pursuant to the Migratory Bird Treaty Act and California FGC, construction activities and/or the removal of any shrubs or any other potential nesting
habitat should be conducted outside the avian nesting season to avoid impacts to nesting birds. The nesting season generally extends from February 1 through August 31, but can vary slightly from year to year based upon seasonal weather conditions. Because construction could occur during the avian nesting season, **Mitigation Measure BIO-1** would reduce the potential impact to nesting birds to less than significant.

There are no known cultural, archaeological, paleontological, or tribal resources known to exist in the Project area. However, mitigation measures **CUL-1, CUL-2** and **TRC-1, TRC-2, and TRC-3** are included to ensure less than significant impacts in the event resources are uncovered during construction and operations.

b) **Does the project have impacts that are individually limited, but cumulatively considerable?** ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

There are no projects that have been identified to occur within the Lucerne Valley area during the time of the Project activities. Potential impacts have been identified in the categories of Biological Resource, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials and Tribal Cultural Resources. The evaluation contained in this document determined that potential impacts to the environment can be reduced to a less than significant level with implementation of the identified mitigation measures. Based on data provided in this document, including the type of project proposed and its location, it is concluded that implementation of the proposed project will not result in impacts that are either individually or cumulatively considerable or significant when viewed in relation to past, present or probable future projects.

c) **Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

The proposed project will not result in any identifiable substantial adverse effects on humans either directly or indirectly. The issues for which mitigation has been provided to control potential harm to humans are Geology and Soils, Hazards and Hazardous Materials. With implementation of the required mitigation no substantial adverse effect to humans will result from carrying out the proposed project.

Therefore, based on the findings in this Initial Study, the MWA, acting as the CEQA lead agency for this proposed project, will process a Mitigated Negative Declaration (MND) as the appropriate CEQA environmental determination for the proposed project. The MWA will issue a Notice of Intent to Adopt a Mitigated Negative Declaration and circulate the MND package for review for the required period. Following receipt of comments, the MWA will compile responses to any comments and prepare a final MND package for consideration by MWA. Based on the final MND package, the MWA will consider whether implementation of the proposed project as defined in this document can proceed as determined by the MWA at the completion of the review process.

If you or your agency comments on this proposed MND, you or your agency will be provided responses to comments and notified of the date of the MWA final review and decision. A decision by the MWA to approve the MND would be based on all of the information available in the whole of the record before the MWA at the conclusion of the CEQA environmental review process for this proposed project. Completion of the CEQA review process would allow implementation of the proposed project in accordance with any approved mitigation measures and conditions of approval for the project.
SECTION 5 - SUMMARY OF MITIGATION MEASURES

The following mitigation measures were identified to reduce impacts to less than significant:

**BIOLOGICAL RESOURCES:**

**BIO-1**  
The project site shall be surveyed for nesting birds by a qualified avian biologist within three (3) days prior to initiating the construction activities. If active nests are found during the pre-construction nesting bird surveys, a Nesting Bird Plan (NBP) will be prepared and implemented. At a minimum, the NBP will include guidelines for addressing active nests, establishing buffers, monitoring, and reporting. The NBP will include a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be determined by the biologist, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist has determined the young birds have successfully fledged and a monitoring report has been submitted reviewed and approved by the MWA.

**CULTURAL RESOURCES:**

**CUL 1**  
In the event that evidence of historic activities is unearthed during construction activities, work in the immediate vicinity of the find will be stopped and a qualified archaeologist will be contacted to assess the find and recommend appropriate mitigation. No disturbance shall occur in the vicinity of the find until the site is evaluated by the archaeologist and the find is recorded or treated per the recommendations of the qualified archaeologist.

**CUL-2**  
In the event that human remains are discovered, there shall be no disposition of such human remains, other than in accordance with the procedures and requirements set forth in California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. These code provisions require notification of the County Coroner and the Native American Heritage Commission, who in turn must notify those persons believed to be most likely descended from the deceased Native American for appropriate disposition of the remains. Excavation or disturbance may continue in other areas of the project site that are not reasonably suspected to overlie adjacent remains or archaeological resources.

**GEOLOGY AND SOILS**

**GEO-1**  
The contractor will provide to the County of San Bernardino an Erosion Control Report (ECR) that will identify the Best Management Practices (BMPs) for managing the stockpiles. The BMPs may include but not be limited to the following:

- Locate stockpiles away from active drainage courses, drain inlets or concentrated flows of storm water.
- For wind erosion control, apply water or other dust palliative to stockpiles. Smaller stockpiles may be covered as an alternative.
- Place bagged materials on pallets under cover.
- During the rainy season, non-active silty or highly erodible soil stockpiles will be covered with heavy plastic and the stockpile contained within a temporary perimeter sediment barrier, such as berms, dikes, silt fences, or sandbag barriers. A soil stabilization measure may be used in lieu of cover.
- During the non-rainy season prior to the onset of rain, the silty or highly erodible stockpile should either be covered or protect them with temporary perimeter sediment barriers.
- Year-round, active silty or highly erodible soil stockpiles will be protected with temporary linear sediment barriers prior to the onset of rain.
- The main haul road will be graded and watered at least once per day, or as often as necessary to control dust as required by the Mojave Desert Air Quality Management District (MDQMD).

HAZARDS AND HAZARDOUS MATERIALS

HAZ-1 The Department of Toxic Substances Control (DTSC) and San Bernardino County Fire Department Hazardous Materials Division shall be immediately notified in the event malodorous or discolored soils, liquids, containers, or other materials known or suspected to contain hazardous materials and/or contaminants are encountered during activities associated with the proposed project. Earthmoving activities in the vicinity of said material shall be halted until the extent and nature of the suspect material is determined by qualified personnel (as determined by the DTSC). The removal and/or disposal of any such contaminants shall be in accordance with all applicable local, State, and Federal standards.

HAZ-2 In the event of any identification of or spill of hazardous materials and/or contaminants in the construction area, the party whose activity resulted in the spill or release shall notify the MWA of the location, extent, and nature of the spill or release. The MWA shall thereupon assess the depth to groundwater in the area of the release, and if it appears that groundwater tables are high enough to create a potential for exposure of the groundwater table to the spill or release, will modify its recharge operations as much as feasible to prevent groundwater table intersection with the identified spill or release.

HAZ-3 During construction, all staging areas, welding areas, or areas slated for construction using spark-producing equipment will be cleared of dried vegetation or other material that could ignite. Spark arresting equipment shall be in good working order. MWA shall require all vehicles and crews working at the project site to have access to functional fire extinguishers at all times. In addition, construction crews are required to have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks. The contractor also shall provide a safety plan for the implementation of additional protocols when the National Weather Service issues a Red Flag Warning. Such protocols should address smoking and fire rules, storage and parking areas, use of gasoline-powered tools, use of spark arresters on construction equipment, road closures, use of a fire guard, fire suppression tools, fire suppression equipment, and training requirements.
TRIBAL CULTURAL RESOURCES

TRC-1 If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

TRC-2 In the event that Native American cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, San Manuel Band of Mission Indians will be contacted if any such find occurs and be provided information and permitted/invited to perform a site visit when the archaeologist makes his/her assessment, so as to provide Tribal input.

TRC-3 If significant Native American historical resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, an SOI-qualified archaeologist shall be retained to develop an cultural resources Treatment Plan, as well as a Discovery and Monitoring Plan, the drafts of which shall be provided to San Manuel Band of Mission Indians for review and comment.

    a. All in-field investigations, assessments, and/or data recovery enacted pursuant to the finalized Treatment Plan shall be monitored by a San Manuel Band of Mission Indians Tribal Participant(s).

    b. The Lead Agency and/or applicant shall, in good faith, consult with San Manuel Band of Mission Indians on the disposition and treatment of any artifacts or other cultural materials encountered during the project.
SECTION 6 - REFERENCES


California Department of Toxic Substances Control. Envirostor.


Merrill Johnson, May 5, 2017. Hydrogeologic Support for Recharge Feasibility Evaluation, LV Pump Station, NE Corner of Foothill Road and Dallas Avenue, Lucerne Valley, California, MJ Project No. 2218.037,100


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Figure 2 - Site Location

Lucerne Valley Pumping Station
Mojave Water Agency
APPENDICES
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Appendix A
Biological Resources Assessment