

Upgrade/Expansion Proposed Action
Environmental Assessment

San Miguel Community Services District Wastewater Treatment Plant

MAY 2022

Prepared for

**U.S. DEPARTMENT OF THE AGRICULTURE
RURAL DEVELOPMENT**

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
amsl	above mean sea level
APN	Assessor's Parcel Number
BACT	Best Available Control Technology
BMP	best management practice
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	carbon monoxide
CO2	carbon dioxide
CO2e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
District	San Miguel Community Services District
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FPPA	Farmland Protection Policy Act
GHG	greenhouse gas
GWP	global warming potential
HDPE	high-density polyethylene
LID	Low Impact Development
LUCE	Land Use and Circulation Elements
LUO	Land Use Ordinance
MCV2	Manual of California Vegetation, Second Edition
MLD	most likely descendant
MM	Mitigation Measure
MT	metric tons
NAHC	Native American Heritage Commission
NCL	California Natural Community List
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
PM10	particulate matter less than or equal to 10 microns in diameter
PM2.5	particulate matter less than or equal to 2.5 microns in diameter
PV	photovoltaic
RD	Rural Development
ROG	reactive organic gas
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SLOAPCD	San Luis Obispo County Air Pollution Control District
SWPPP	Stormwater Pollution Prevention Plan
UPRR	Union Pacific Railroad

Acronym/Abbreviation	Definition
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
UV	ultraviolet
WDR	waste discharge requirement
WWTF	San Miguel Machado Wastewater Treatment Facility

1.0 Purpose and Need

This Environmental Assessment (EA) is a site-specific analysis of potential impacts that may result by implementing the Proposed Action or an alternative. This EA will allow the Authorized Officer to determine whether implementing the Proposed Action or an alternative may cause significant impacts to the human environment. If the Authorized Officer determines no significant impacts would occur, a Finding of No Significant Impact would be prepared and a Decision Record would be issued. If significant impacts are likely to occur, or a Finding of No Significant Impact cannot be reached, an Environmental Impact Statement would be prepared with a subsequent Record of Decision. This EA has been prepared in compliance with the National Environmental Policy Act of 1969 (NEPA) following the Guidance to Applicants for Preparing Environmental Assessments Document that accompanies the U.S. Department of Agriculture's (USDA) Environmental Policies and Procedures, codified at 7 Code of Federal Regulations (CFR) part 1970 (7 CFR 1970.5(b) (3) (iv) (C)).

1.1 Proposed Action Title

San Miguel Wastewater Treatment Upgrade/Expansion (Proposed Action)

1.2 Lead Office/Preparing Office

The USDA Rural Development (RD) is the NEPA lead agency for the Proposed Action. USDA RD is a mission area that includes three federal agencies – Rural Business-Cooperative Service, Rural Housing Service, and Rural Utilities Service. The agencies have an excess of 50 programs that provide financial assistance and a variety of technical and educational assistance to eligible rural and tribal populations, eligible communities, individuals, cooperatives, and other entities with a goal of improving the quality of life, sustainability, infrastructure, economic opportunity, development, and security in rural America. Financial assistance can include direct loans, guaranteed loans, and grants in order to accomplish program objectives. The Proposed Action is seeking federal grant funding from the USDA RD under the Rural Development Water and Wastewater Disposal Loan and Grant Program.

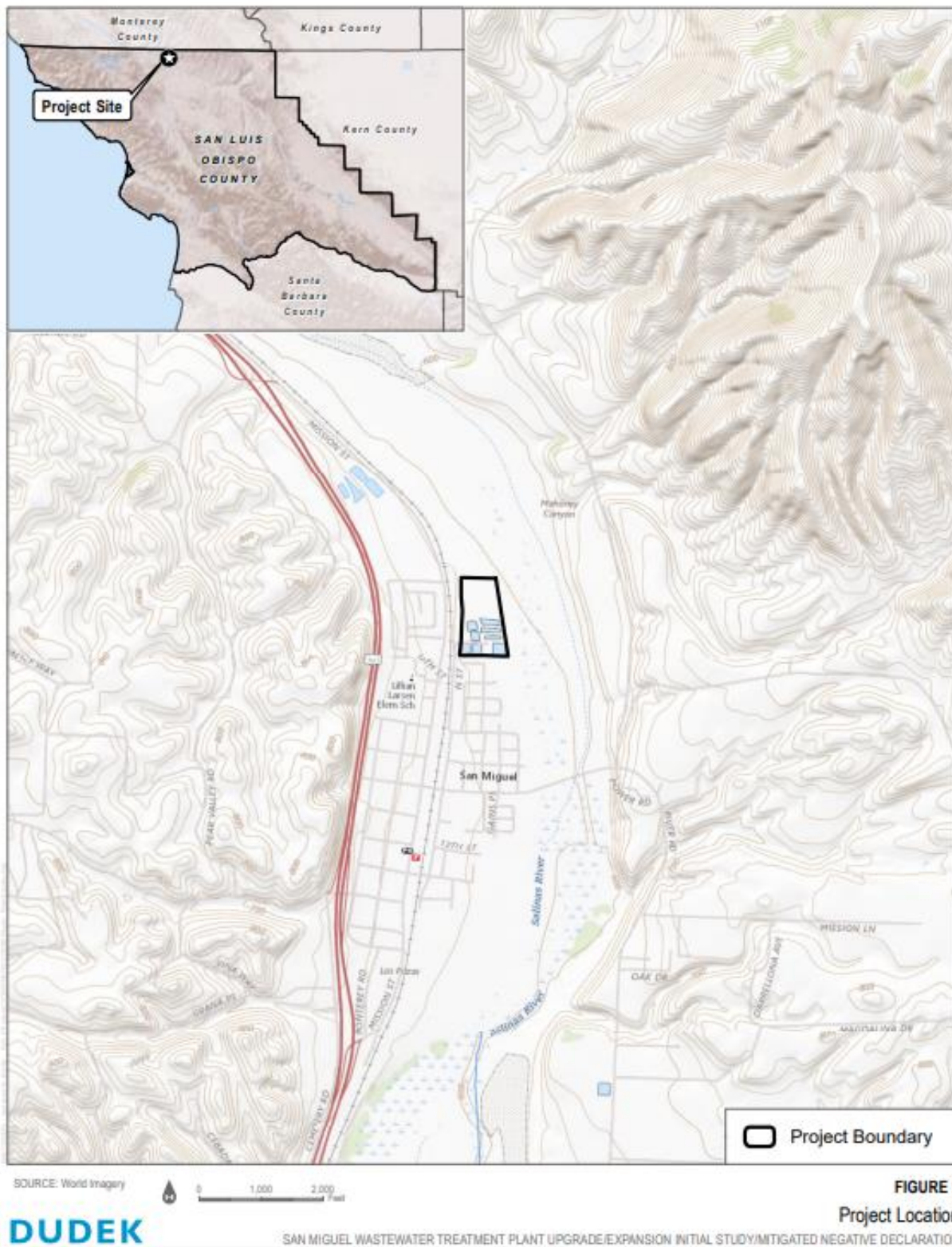
Under 7 CFR §1970.54(a) the USDA RD has established categorical exclusions with an environmental report applicable to certain types of actions. The USDA RD has determined that the Proposed Action would enable enhancements within an existing Wastewater Treatment Facility (WWTF) that do not meet the definition of a categorical exclusion per 7 CFR §1970.54(a)(4) for small-scale site-specific development; therefore, the preparation of an EA is required.

1.3 Location of Proposed Action

The Proposed Action is located in the community of San Miguel, located about 10 miles north of Paso Robles, in San Luis Obispo County, California (see Figure 1, Project Location). San Miguel receives several municipal services from the San Miguel Community Services District (District). The District services include lighting, solid waste collection, fire protection, water and wastewater. Treatment of municipal wastewater occurs at the existing San Miguel Machado WWTF, which is located near the northern limits of the District, adjacent to the west bank of the Salinas River.

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Figure 1 Project Location



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The District owns and operates the WWTF, which occupies approximately 38.4 acres comprising four separate parcels including Assessor's Parcel Numbers (APNs) 021-051-013, -015, -016 and -017. The main plant occupies approximately 17.8 acres while the remaining 20.6 acres are located within the channel of the Salinas River to the east of the plant and mapped with Federal Emergency Management Agency (FEMA) Special Flood Hazard Zone A. The existing WWTF is comprised of four partially mixed aerated lagoons in series and three percolation ponds.

With the exception of a new treatment processing pad, all-weather access road and associated grading, all Proposed Action components would be located within the main WWTF. The new treatment processing pad and grading would be located to the north of the main WWT on land owned by the District property that is routinely maintained and cleared.

1.4 Background Information

The WWTF underwent the most recent significant upgrade in the late 1990s, bringing its current and permitted capacity at 200,000 gallons per day (0.2 million gallons per day). The District currently treats an average of approximately 170,000 gallons per day. As noted in the 2016 County of San Luis Obispo San Miguel Community Plan Update Final Environmental Impact Report (County of San Luis Obispo 2016a), San Miguel is expected to grow to a population of 3,658 in the year 2035. The District acknowledges that the existing WWTF is nearing capacity and has therefore proposed the WWTF expansion and upgrade to meet population Proposed Action and to comply with regulatory requirements.

The District engaged Monsoon Consultants to prepare an engineering analysis to consider alternatives and to develop design recommendations for the WWTP. Monsoon Consultants prepared the Wastewater Treatment Facility Upgrade/Expansion Preliminary Engineering Report (Engineering Report) that is the foundation for the District's engineering design concept (Appendix A). The engineering design concept meets the Central Coast Regional Water Quality Control Board (RWQCB) existing and anticipated waste discharge requirements (WDRs); provides sufficient treatment for effluent flows up to the 30-year Proposed Action average daily flow of 0.470 million gallons per day; and provides recycled effluent which meets the requirements for either agricultural irrigation or groundwater recharge purposes. The selected alternative is the Membrane Bioreactor (MBR), which is the Proposed Action.

Physical improvements that would occur as part of the Proposed Action include collection system/reclaimed water system, pumping station, septic receiving station, office and laboratory facilities, additional maintenance and equipment storage/shop facilities, upgrade and modernization of the electrical controls and supervisory control and data acquisition (SCADA) system and upgrade of backup power generation facilities. With the exception of a new treatment processing pad, all-weather access road and associated grading, all Proposed Action components would be located within the main WWTF. The new treatment processing pad and grading would be located to the north of the main WWT on land owned by the District property that is routinely maintained and cleared.

1.5 Proposed Action Description

The Proposed Action is seeking federal grant funding from the USDA RD under the Rural Development Water and Wastewater Disposal Loan and Grant Program. The USDA RD's primary purposes for the Proposed Action is to provide the District with funding that will allow adequate wastewater service for the community of San Miguel into the future and to meet regulatory requirements. The need for the Proposed Action is driven by the Central Coast

RWQCB existing and anticipated waste discharge requirements (WDRs, including WDR Order No. R3-2020-0020) and forecasted population growth within San Miguel. Although there are differing Proposed Actions for total community growth based on the County of San Luis Obispo San Miguel Community Plan Update and Final Environmental Impact Report or by the District's own estimate, the contemplated growth in both cases is greater than the existing WWTP capacity.

The objectives of the Proposed Action include:

- Provide reliable wastewater services to the community of San Miguel
- Enhance and upgrade the Machado Wastewater Treatment Plant (WWTP) to comply with Regional Water Quality Control Board Waste Discharge Requirement No. R3-2020-0020
- Enable total dissolved solids, chloride, sodium and nitrogen removal as part of the WWTP enhancements
- Offset groundwater withdrawal from the Paso Robles Groundwater Basin by increasing the use of reclaimed water
- Treat wastewater to a level sufficient for irrigation of non-edible agriculture
- Implement the Membrane Bioreactor alternative as outlined in the Monsoon Consultants November 2020 Engineering Report
- [others]

The USDA RD's authorized officer would decide whether or not to issue federal grant funding for the Proposed Action under the Rural Development Water and Wastewater Disposal Loan and Grant Program.

2.0 Alternatives Evaluated Including the Proposed Action

2.1 Proposed Action

The District has identified the need to enhance and expand the existing WWTP as further described herein to address regulatory requirements and to provide service to the growing San Miguel community into the future. The proposed WWTP upgrade would increase the permitted daily capacity from 200,000 gallons per day to 500,000 gallons per day and enable the use of treated effluent to be stored or conveyed to nearby agricultural operations for non-edible agricultural irrigation (Proposed Action).

Wastewater treatment at the WWTP follows five main phases, which include:

- Primary treatment: wastewater is placed in a holding tank and solids settle to the bottom where they are collected and lighter substances like fats and oils are scraped off the top. These layers are then removed and then the remaining liquid can be sent to secondary treatment. Sewage sludge is treated in a separate process called sludge digestion.
- Sludge Digestion: Sewage sludge scraped off the bottom of the settling tank during primary treatment is treated separately from wastewater. Sludge can be disposed of by bacterial digestion, incinerated, or condensed, heated to disinfect it, and reused as fertilizer or hauled for disposal at a landfill.
- Secondary treatment: liquids resulting from primary treatment are then sent through a series of tanks where waste is broken down by aerobic bacteria.
- Tertiary treatment: wastewater is passed through additional filtering lagoons or tanks to remove extra nutrients and waste particles. Lagooning is another method when water is stored in a lagoon and native plants, bacteria, algae, and small zooplankton filter nutrients and small particles from the water (LibreTexts 2020).
- Discharge: effluent treated to acceptable regulatory levels is ultimately discharged to land to percolation ponds, as in the case of the San Miguel WWTP, or to surface waters (e.g., ocean, lake, river) or to groundwater (e.g., injection wells). In a growing number of treatment plants, wastewater is being treated to a level acceptable to use on landscaping and non-edible agriculture (typically referred to as reclaimed or recycled water).

Each of these phases requires certain processing equipment to accomplish the wastewater treatment process. The Proposed Action includes renovation of existing infrastructure, construction of new infrastructure and implementation of modified treatment processes.

The District engaged Monsoon Consultants to prepare an engineering analysis to consider alternatives and to develop design recommendations for the WWTP. Monsoon Consultants prepared the Engineering Report that is the foundation for the District's engineering design concept (Appendix A).

The following discretionary actions are anticipated to implement the Proposed Action:

- Approval of the Proposed Action by the District Board of Directors
- Regional Water Quality Control Board Clean Water Act Section 402 and implementing regulation National Pollutant Discharge Elimination System municipal separate storm sewer system permit and Clean Water Act Section 401 Water Quality Certification

- United States Army Corps of Engineers Nationwide Permit No. 12 (Utility Line Discharges)
- California Department of Fish and Wildlife (CDFW) Lake and Streambed Alteration Agreement (California Fish and Game Code Section 1600 et seq.)
- Issuance of permits and Authority to Construct by the San Luis Obispo Air Pollution Control District

2.1.1 Proposed Action Components

The primary actions associated with the Proposed Action would include the upgrade of wastewater and solids treatment systems; expansion of the WWTF treatment capacity; implementation of recycled water treatment systems; and the construction of ancillary support facilities.

2.1.1.1 Existing Facilities

There are four existing aeration ponds and three percolation beds that will remain as a part of the Proposed Action (see Figure 2, Site Plan). Access roads on site would be improved. Existing trailers would be removed.

2.1.1.1.1 Aerated Treatment Ponds

Aerated Treatment Ponds 1 and 2: There are two 0.94-million-gallon Stage 1 aerated aerobic ponds, equipped with 25 and 20 horsepower pumps, respectively. These are completely mixed aerated lagoons. The floating aerators keep all solids in suspension while maintaining dissolved oxygen levels. Solids do not appreciably deposit in Ponds 1 and 2, but instead settle out predominantly in Pond 3. Floatable plastics and debris must be raked out of these ponds by hand.

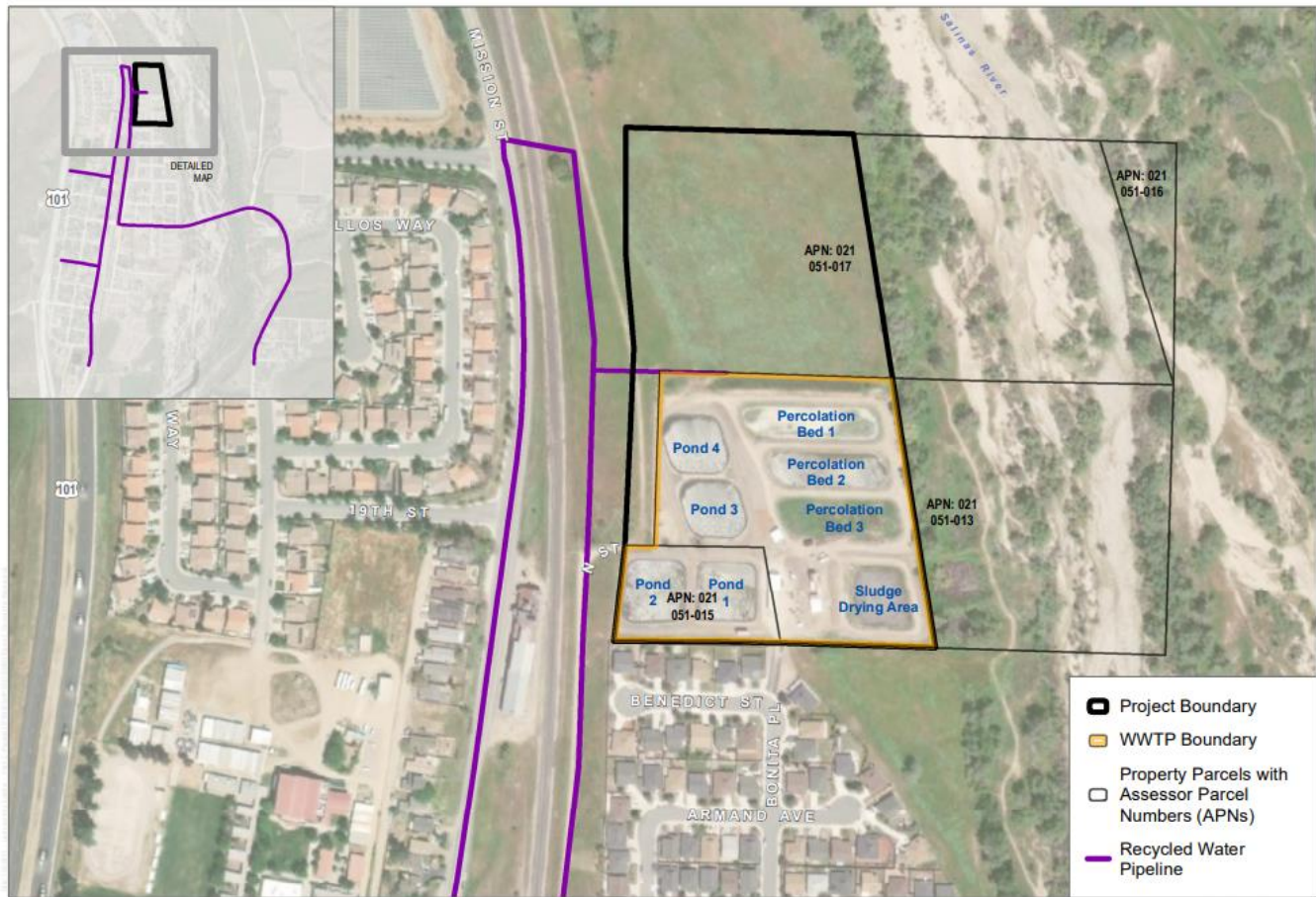
Aerated Treatment Pond 3: There is a single 0.87-million-gallon Stage 2 pond equipped with a 7.5 horsepower aerator. This pond and floating aerators maintain dissolved oxygen levels in the pond, while allowing solids to settle to the bottom. Organic matter in the sludge slowly decomposes anaerobically. This pond is generally referred to as a facultative pond, with an upper aerobic zone and lower anaerobic zone.

Aerated Treatment Pond 4: There is a single 0.87-million-gallon Stage 3 pond equipped with a 7.5 horsepower aerator. This is the final (fourth) pond that also maintains dissolved oxygen levels in the upper zone. Very little sludge settles in this pond, and this pond is considered a final polishing pond prior to discharge to the percolation ponds/beds.

2.1.1.1.2 Percolation Ponds

There are three percolation ponds totaling 1.7 acres. The two northernmost ponds were re-conditioned in 2008. At that time, both ponds had silted up considerably and were not effectively percolating effluent. Both ponds were dried out and ripped, and the upper several feet of material were removed and replaced with clean sand. In addition, the percolation ponds were deep-ripped in several locations to allow for better connectivity to the underlying more permeable soils. The third and southernmost pond was not re-worked at that time but continues to serve as a percolation pond.

Figure 2 Site Plan



SOURCE: World Imagery

DUDEK 0 200 400 Feet

FIGURE 2 Existing and Expansion of Wastewater Treatment Plant Areas

SAN MIGUEL WASTEWATER TREATMENT PLANT UPGRADE/EXPANSION INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

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2.1.1.1.3 Access Roads

Access to the WWTF is provided by a paved access driveway off of Bonita Place. Once on the District property, roads around the aerated treatment ponds and percolation ponds are unpaved.

2.1.1.2 Proposed Facilities

The following site improvements are proposed as part of the Proposed Action regarding the upgrade of wastewater and solids treatment systems (see Figure 2).

2.1.1.2.1 Headworks

The headworks would be a concrete vault structure which would contain process equipment described below. The headworks structure would be constructed of cast-in-place concrete and be primarily below grade. The footprint of the structure would be approximately 1600 square feet with the base of the structure approximately 15 feet below the ground surface. The headworks vault would be located within the existing WWTF between Pond 3 and Percolation Bed 3.

Flow Splitter: The flow splitter would send excess flow to an existing pond that would be retrofitted into an aerated flow equalization basin. Base flows would be directed into the influent pumping station.

Influent Pumping Station: A new influent pump station would replace the existing aging pumping station. The new influent pumping station would be constructed as a "wet well" type and equipped with multiple (minimum of two) submersible pumps. Wastewater would pass through the headworks then into the pump station to lift it to a higher elevation so that it can flow through the remainder of the plant by gravity. Odor control would be installed to minimize wet-well turbulence; that includes collection of odors in scrubbers or biofilters or the addition of odor control chemicals to the sewer upstream of the pump station. Chemicals typically used for odor control include chlorine, hydrogen peroxide, metal salts (ferrous chloride and ferric sulfate), oxygen, air, and potassium permanganate. The influent pump station would be approximately 300 square feet and located adjacent to and immediately downstream of the headworks. Like the headworks structure, the influent lift station would be primarily below ground, with the base being approximately 18 feet below the ground surface.

Microscreen: The microscreen removes additional suspended solids from wastewater. Solids removed by the microscreen would be stored in a dumpster for hauling to the Chicago Grade landfill.

2.1.1.2.2 Secondary Treatment Building

Once wastewater passes through the headworks and influent lift station and the primary treatment process is complete, the effluent would pass into the secondary treatment facility containing the MBR unit. Components of the MBR unit would include a new pre-engineered package MBR municipal wastewater treatment system, along with a new pre-engineered system for the disinfection of treated effluent which shall be accomplished by enclosed, low pressure, ultraviolet (UV) unit(s), and a new pre-engineered package biosolids dewatering system. Facilities for chemical storage, as required for MBR operation and maintenance, would be incorporated into the MBR unit. Initially the MBR unit would be installed on a structural concrete slab with an approximate footprint of 15,000 square feet. The MBR unit would initially not be enclosed in a building and would be exposed to the atmosphere. The maximum height of the equipment would extend approximately 12 feet above the adjacent ground surface. In

the future, the District may consider enclosing the MBR unit in an environmentally controlled building which would have a similar footprint (i.e., 15,000 square feet) and have a maximum building height of approximately 25-feet. The building would be located within the existing WWTF in San Miguel.

Membrane Bioreactor Unit: Membrane bioreactor technology provides simultaneous secondary and tertiary treatment. Separation of liquid and solids is accomplished by operating submerged membranes under vacuum with product water drawn through the membranes with permeate pumps or using a gravity-assist siphon system. The solids remaining on the surface of the membranes are returned to the head of the aeration basins. A portion of the solids are wasted just as with conventional activated sludge. Membrane bioreactors require finer screening (2 millimeter screens) than conventional activated sludge to remove fine materials that can wrap around and clog the membranes. Another added benefit is that the volume of air to be treated for odor control is smaller than conventional treatment. Solids removed from the membrane bioreactor would be conveyed for sludge management, dewatering, and disposal.

Blowers: Blowers would create air flow to support the aeration process. Proper air supply is critical to various functions in wastewater treatment facility.

Internal Mixed Liquor Recycle: This equipment removes excess nitrogen from effluent.

UV Disinfection System: UV disinfection uses UV radiation to destroy or inactivate disease-causing organisms. UV lamps would be contained within vessels and water would be pumped through the vessels at a set flow rate. The UV disinfection process enables the treated effluent to meet California Code of Regulations Title 22 standards for use of reclaimed water for non-edible irrigation.

Biosolids Dewatering System: The biosolids dewatering system would include a dewatering press, feed pump and polymer system, aeration system and stainless-steel liquid storage tank. This operation and controls of the biosolids dewatering system shall all be integrated into the MBR System control system and District SCADA system. The sludge dewatering equipment shall have the capacity to produce a dewatered sludge with a minimum 20% solids. Dewatered sludge would fall from the press by gravity into the District supplied roll-off dumpster or equivalent container for disposal and subsequent transport to the Chicago Grade landfill

Chemical Storage: The WWTF uses certain chemicals to maintain the treatment process. These chemicals would be housed in on the MBR unit slab, with secondary containment, and managed in accordance with an approved hazardous materials business plan.

2.1.1.2.3 Other Pumping Facilities

As discussed in Appendix A, the Proposed Action includes several replacements for existing pumps. The proposed pumps are shown in Table 1.

Table 1. Proposed Pump Schedule

Purpose	QTY	Type	Size (HP)	Location	Power Required (KWH/day)
Lift Station	2	Submersible	20	Lift Station	358
Grit Classifier Pump	1	Centrifugal	5	Headworks	11
Filtrate Pump	2	Centrifugal	5	MBR	120
RAS Pump	2	Centrifugal	7.5	MBR	187
IR Pump	2	Centrifugal	5	MBR	58
Dosing Pump	1	Centrifugal	0.25	MBR	9
Polymer Dosing Pump	1	Centrifugal	0.5	Sludge Management	3
Recycled Water Pump	2	Submersible	25	Treated Effluent/Recycled Water Pump Station	358

Source: Appendix A.

Notes: QTY = Quantity; HP = horsepower; KWH = kilowatt-hours; MBR = membrane bioreactor; RAS = return activated sludge.

2.1.1.2.4 Support Facilities

Office and Laboratory Facilities: The proposed expansion/upgrade of the plant would require trained and certified staff with expertise in mechanical plant operations and laboratory testing to be on site. This increased operator presence and laboratory testing requirements would require that permanent environmentally controlled office and laboratory facilities be constructed at the WWTF site. The office and lab building would be 2,000 square feet and located near the main entrance to the WWTF.

Additional Maintenance and Equipment Storage/Shop Facilities: At present, there exists a small shop/equipment storage building at the WWTF. The existing facility has approximately 1,000 square feet of usable space and is currently utilized primarily for the storage of small equipment, materials, and tools. The facility is plumbed and has electrical service. A single restroom is contained in the existing facility with a toilet, wash basin, and shower. The existing building does not have sufficient space to accommodate several of the larger pieces of equipment that the District currently owns, so at present these are stored outside and exposed to the weather. The proposed expansion/upgrade of the plant would require the acquisition of additional equipment that would require regular maintenance and repairs. The proposed structure would be approximately 2,400 square feet and 25 feet in height.

Environmentally Controlled Electrical and Controls Facilities: With the expansion and upgrade of the existing WWTF, the existing electrical service and controls infrastructure would be upgraded. Currently, the electrical and controls equipment are located outside and exposed to the weather, with only a shade structure for protection from the elements. It is anticipated that as part of the Proposed Action, there would be a significant increase in the number and sophistication of the electrical and controls devices and components required for the operation, monitoring, and control of the plant. To properly protect the required electrical and controls systems and to provide an environment where they can be properly serviced and maintained, the Proposed Action includes a 600-square-foot, 15-foot high building to house this equipment.

Upgrade and Modernization of the Electrical, Controls, and SCADA Systems: The Proposed Action would include an upgrade to the existing electrical service and controls infrastructure. The existing WWTF requires only basic

electrical and controls infrastructure and minimal automation. The existing SCADA system is utilized primarily for alarm notification to off-site operators and for basic acquisition of operational data. With the increased sophistication and complexity of operations that would occur as a result of the WWTF expansion and upgrade, it would be necessary to upgrade and modernize the electrical, controls, and SCADA systems. It is imperative that the planning and design of these system upgrades be accomplished with comprehensive input from the District's operations staff to ensure that the electrical, controls, and SCADA systems that are ultimately installed are compatible with the capabilities and expertise of the plant operators.

Backup Power Generation Facilities: The Proposed Action would include an on-site, automatically starting generator, capable of ensuring continuous operation of all critical wastewater treatment system units for a duration equal to the longest power outage on record.

Septage Receiving Station: A new septage receiving station is desired by the District for receiving septage unloaded from hauling vehicles. The receiving station can be a source of revenue for the District and would provide a service to the surrounding sphere of influence. Wastes received could include residential, portable toilet, septage tank, and/or pre-approved industrial wastes. Typically, liquid waste is pumped into a septage receiving station where rags and trash are removed and deposited into a dumpster. Following initial trash removal, grit is removed and deposited into a dumpster. The flow is then combined with the influent wastewater for treatment.

2.1.1.2.5 Solids Management and Hauling

The wastewater treatment process results in treated wastewater and solids. Solids are routinely extracted from equipment and ponds and, if no use is available, transported to the Chicago Grade Landfill, located at 2290 Homestead Road in Templeton, California. Materials are hauled using roll-off container truck equipped with a 12-foot container at a frequency of 2 trips per month.

2.1.1.2.6 Optional Solar Photovoltaic Field

The District is continually looking to maximize treatment efficiency and minimize overall cost. Under this option, the Proposed Action would include the installation of ground-mounted solar panels in the northern portion of the Proposed Action site, approximately 500 feet north of the aeration ponds. Solar energy would be captured by an array of solar photovoltaic (PV) panels mounted to fixed racking or to a single-axis tracking system. The total number of panels used would depend on the final selection of the actual panels to be used. The panels would be arranged in series to effectively increase output voltage.

The panels would be aligned in rows to be spaced based on specific design criteria and would be mounted on the racking systems. The type of anchoring system and/or foundation supports for the racking structures would be determined based on a preliminary geotechnical assessment, but it is anticipated that the racks would be supported by screw or driven piles into the ground. A fixed racking system would be stationary, with panels mounted to tilt to the south. If used, the tracking system would rotate slowly throughout the day at a range of +/- 60 degrees facing east to west to stay perpendicular to the incoming solar rays so production can be optimized. The number of panels per tracker would depend on final configuration and, at its highest rotated edge, would have a maximum height which would be defined by the topography of the terrain and the dimensions of the chosen panels. The minimum clearance from the lower edge of the panel to ground level is approximately 18 to 24 inches but would be subject to change pending final design. Power from the solar PV system would be used to provide supplemental power to the WWTF.

2.1.1.2.7 Recycled Water Conveyance System

The Proposed Action contemplates new 8-inch high-density polyethylene pipe (HDPE) water transmission and distribution pipelines to convey wastewater to large vineyards to the east and west of the WWTF. The precise alignment of the purple pipe has not yet been finalized; however, the general alignment would be as described below. It should be noted that the recycled water conveyance system described herein is considered a potential future Proposed Action by the District and would not be included with the initial phase (i.e. WWTF Upgrade) of the Proposed Action.

New 8-inch pipe would exit the WWTF to the northwest and cross the Union Pacific Railroad (UPRR) tracks and turn south at Mission Street. The pipe would be installed within the existing paved street and run southward from 20th Street approximately 1.5 miles to the junction of Mission Street and 9th Street at the Mission San Miguel/Rios Caledonia turnout on the southern end of San Miguel. This pipeline has been broken into the following segments:

2.1.1.2.8 Mission Street Alignment

Segment A: This segment is approximately 0.5 miles and extends from the WWTF to Mission Street southward to 16th Street. One pipeline offshoot would extend from Mission Street westward on 16th Street approximately 0.18 miles to U.S. Highway 101 to the proposed Lilian Larson Elementary School turnout.

Segment B: This segment is approximately 0.37 miles and extends within Mission Street from 16th Street south to 12th Street. One pipeline offshoot would extend from Mission Street westward on 12th Street approximately 0.16 miles to the San Miguel Park turnout.

Segment C: This segment is approximately 0.65 miles and extends within Mission Street from 12th Street to 9th Street to the Mission San Miguel/Rios Caledonia turnout.

Two additional turnouts would be provided: Vino Farms Vineyard Irrigation Turnout near 20th Street/Mission Street; and Mission Heights Homeowners Association Turnout at 19th Street/Mission Street.

2.1.1.2.9 N Street/14th Street Alignment and River Road Alignment

New 8-inch pipe would exit the WWTF to the southwest and turn south within N street before reaching the UPRR tracks. The pipeline would continue south until reaching 14th Street/River Road at which point the pipeline would turn east and cross the Salinas River. One offshoot would be installed at Cross Canyon Road, including the J Lohr East Vineyards turnout, and end at the proposed Airport Mixed Use Development turnout. Once past the offshoot, the pipeline would continue within River Road until reaching Magdalena Drive. This pipeline has been broken into the following segments:

N Street/14th Street Alignment

Segment D: This segment extends approximately 0.25 miles from the WWTF southward within N Street, which is unpaved for approximately 0.25 miles, at which point the road transitions to asphalt paving.

Segment E: This segment includes the portion of the pipe within the paved right-of-way of N Street extending south until reaching 14th Street/River Road.

River Road Alignment

Segment F: This segment begins at N Street/River Road and extends eastward. The pipe would run approximately 0.53 miles until reaching Cross Canyons Road/Power Road. This segment crosses the Salinas River. Installation methodology is specified in Section 2.5.2. All activities would occur from the bridge deck and there would be no workers or equipment operating within the banks of the Salinas River.

Segment G: This segment extends approximately 0.2 miles southeast within River Road from Canyons Road/Power Road to Old Loop.

Segment H: This segment extends approximately 0.35 miles south within River Road from Old Loop to Mission Lane. This segment contains three ephemeral creeks that flow from east to west under River Road and into the Salinas River.

Segment I: This segment extends approximately 0.42 miles south within River Road from Mission Lane to Martinez Drive. This segment contains one ephemeral creek that flows from east to west under River Road and into the Salinas River.

Segment J: This segment extends approximately 0.10 miles south within River Road from Martinez Drive to Magdalena Drive.

2.1.1.2.10 Cross Canyons Alignment

Segment K: This segment extends north at Cross Canyons Road and Indian Valley Road approximately 0.24 miles and terminating at the Airport Mixed Use Development turnout

2.1.1.2.11 Construction Activities

Wastewater Treatment Facility

Construction of the Proposed Action is anticipated to commence in the summer 2022 and would continue for a minimum of 12 months, subject to the regulatory approval process.

A temporary construction staging area would be required for construction activities and would be located on District property at the WWTF. The construction staging area would be approximately 100 feet by 200 feet. The construction staging area would be cleared of vegetation if necessary, and crushed rock would be used to stabilize soil to create a temporary entry road, temporary parking, and temporary fabrication areas. Soil excavated during construction may be stockpiled, if feasible, at the construction staging area until it has been determined that it would not be needed for structural fill or backfill. Equipment, material, temporary office space, and construction equipment would be staged in the temporary construction staging area.

Construction would occur between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday. The construction workforce is anticipated to average approximately 20 workers on a daily basis and at peak activities may be up to 50 workers.

Grading in the amount of approximately 20,000 cubic yards of cut which would be incorporated into site fill is anticipated for construction of the WWTF.

Construction activity, duration, equipment, quantity and workforce estimates for the WWTF upgrade are shown in Table 2.

Table 2. WWTF Construction Information

Activity	Duration	Equipment	Quantity	Workers
Grading/Site Prep	4 months	Water truck	2	50
		On site vehicles	2	
		Grader	1	
		Scraper	2	
		Forklifts	3	
		Dozer	1	
		Loader	1	
		Tractor buster	1	
		Utility carts	2	
		Roller/vibrator/padder	1	
		Trencher	1	
		Generator	2	
		Truck cut fill hauling	2	
Plant Installation	6 months	Water truck	2	50
		Grader	3	
		Dozer	3	
		Loader	2	
		Tractor buster	1	
		Tractor disc	1	
		Utility carts	1	
		Roller/vibrator	3	
		Scraper	3	
		Water pumps	1	
		Screener	1	
Demobilization	2 months	Grader	—	20
		Dozer		
		Loader		

Reclaimed Water Pipe System

The District has not established a timeline for the construction of the reclaimed (purple pipe) water system. At such time in the future that the reclaimed (purple pipe) water system is constructed, construction/installation of the pipelines would occur between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday.

Grading in the amount of 2,500 cubic yards of cut and 950 cubic yards of fill is anticipated for construction of the reclaimed water pipe system.

Construction activity, duration, equipment, quantity, and workforce estimates for the reclaimed water pipe system are shown in Table 3.

Table 3. Reclaimed Water Pipe System Information

Activity	Duration	Equipment	Quantity	Workers
Pipeline Installation	6 months	On-site vehicles	2	10
		Water truck	1	
		Grader	1	
		Loader	2	
		Roller/vibrator	1	
		Trencher	1	
		Truck cut fill hauling	1	
		Drill rig	1	
		Reamer	1	
		Pipe roller	1	
Demobilization	2 months	Grader Dozer Loader	—	20

A pipeline construction component looks much like a moving assembly line. A large Proposed Action typically is broken into manageable lengths called “spreads” and utilizes highly specialized and qualified workgroups. Each spread is composed of various crews, each with its own responsibilities. As one crew completes its work, the next crew would move into position to complete its piece of the construction process. In urban areas each spread may be up to 2 miles in length, with the front-end managing traffic, posting no-parking notices, and saw cutting roadways and the back end restoring the trench and conducting paving and restriping.

Prior to undertaking construction activities for the Proposed Action, the District would secure all required permits from agencies with jurisdiction over the rights-of-way along the proposed alignment. Private right-of-way would be secured from property owners. Construction-related permits required by local agencies would be approved and issued prior to the start of construction, including traffic control plan approval, excavation permits, third-party crossing permits, and others, as necessary.

Substructures along the proposed alignment would be identified and protected in place during construction activities. A thorough substructure review would be performed during the planning process for all known substructures and proposed future substructures from both private and public sources. Substructures identified would be accurately shown on the construction drawings from the substructure drawings and maps provided by each owner. The proposed pipelines would be designed to provide adequate horizontal and vertical separation for construction and future operation and maintenance of the existing substructure and new pipeline.

Installation would occur within existing asphalt roads using trenchless and open trench methods. A typical trench would be 24 inches to 30 inches wide and 48 inches deep. The total required construction width could be up to 25 feet within urbanized areas/paved roadways. The ditch would be excavated using backhoes, trenching machines, and excavators. An exception to the mechanical excavation would be hand digging to locate buried utilities, such as other pipelines, cables, water mains, and sewers.

Spoils from excavations, including those from street excavations, would typically be used as backfill materials at the site of origin. Where feasible, excess spoil material along unpaved right-of-way areas in open lands would be spread along the right-of-way. When used for backfill, spoils from the trenches within paved roadways would be hauled to previously disturbed sites for temporary storage and screening, if required, to remove any large rocks or debris and then returned to the trench for backfilling. Spoil material that is unsuitable for backfill use and economically unusable for other purposes would be disposed of in available landfills in accordance with local requirements. Any contaminated soil or waste encountered during trenching would be assessed and then removed and disposed of in the nearest available licensed landfills in accordance with applicable regulations.

Pipe-stringing trucks would be used to transport the pipe, mostly in 18-foot to 20-foot lengths from the shipment point or a pipe storage yard to the construction sites. Where sufficient room exists, trucks would carry the pipe along the right-of-way and side boom tractors would unload the joints of pipe from the stringing trucks and lay them end to end beside the ditch line for future line-up and (for HDPE and steel pipes) welding. Pipeline fittings would be used when pipe bends are not feasible.

Pipeline Crossings

Outlined below are the potential construction techniques that may be required in areas where the proposed alignment would extend over, under, or around riparian areas, culturally sensitive areas, or existing facilities (freeways, roads, railroad tracks, etc.) along the pipeline alignment. Table 4 provides information on the estimated number of crossings that would be required for installation of the pipeline.

Table 4. Known Pipeline Crossings

Crossing ID	Segment	Location	Type of Installation	Crossing Feature
1	A	UPRR Tracks near 20th Street	Casing Bore	UPRR Tracks
2	F	River Road at Salinas River	Bridge Crossing	Salinas River
3	H	North of driveway to Pretty Smith Vineyard & Winery at River Road	Horizontal Directional Drilling	Ephemeral Creek
4	H	South of driveway to Pretty Smith Vineyard & Winery at River Road	Horizontal Directional Drilling	Ephemeral Creek
5	H	North of Mission Lane at River Road	Horizontal Directional Drilling	Ephemeral Creek
6	I	Martinez Drive at River Road	Horizontal Directional Drilling	Ephemeral Creek

Note: UPRR = Union Pacific Railroad.

Directional Drilled Crossings

Horizontal directional drilling is a minimal impact trenchless method of installing underground pipelines using a surface based drilling rig. Horizontal directional drilling is generally accomplished in three phases.

1. A small diameter pilot hole is drilled along the proposed pipe path from one surface point to another.
2. The pilot hole is enlarged to a diameter suitable for the desired pipe.
3. The pipe is pulled into the enlarged hole and is only exposed at the two endpoints. Depending on soil and pipe diameter, steps 2 and 3 can be combined into one operation.

Horizontal directional drilling can be used to cross any number of surface obstacles including roadways, railroads, wetlands, and water bodies of varying sizes/depths. Sufficient room is required to fabricate the full pipeline prior to pulling it into the enlarged hole. Drilling fluid is used to stabilize the borehole and lubricate passage of the pipe. The drilling fluid is used to provide the desired effects without spilling to the surface. Some drilling fluid will be captured at the entrance and exit locations, where it will be cleaned up and disposed of.

Horizontal directional drills typically require a shallow entry and exit pit for each bore. These pits are approximately 5 to 10 feet wide, up to 20 feet long, and 10 feet deep. The work area is usually about 200 feet by 100 feet for the entry pit and 50 feet by 100 feet for the exit pit. Spoils from the excavation would be placed alongside the pits. Spoils would be used as backfill, and handling or use of wet spoils would be in accordance with Stormwater Pollution Prevention Plan (SWPPP) and best management practices (BMPs) adopted to protect stormwater quality.

Bored Crossings

There would be bored crossings under railroad rights-of-way, drainages, and some roadways depending on final design and on county and state planning review. Either a cased bore or a slick bore technique may be used for the bored crossings. In both techniques, a pit is excavated on each side of the facility to be crossed. These pits are typically 10 to 15 feet wide and up to 50 feet long, and depth is dependent on alignment and can range from 5 to 20 feet. The work area typically required is approximately 100 feet by 50 feet for the entry pit and 50 feet by 50 feet for the exit pit. Depth of the pits would depend on final pipeline depth. The method of installation would involve a horizontal boring machine with augers placed within the casing pipe as it is pushed into the opening made by the boring machine. Casing sections would be welded and inspected in the pit prior to boring. The carrier pipe would be inserted into the casing pipe after the casing is completed. For a slick bore, the method of installation would involve use of the carrier pipe as temporary casing as it is pushed into the opening made by the boring machine.

Bridge Crossings

One bridge crossing is anticipated at the Salinas River. The bridge was designed to accommodate the weight of a new reclaimed pipeline, so no bridge upgrades or modifications are required to implement the Proposed Action. The pipeline would be installed between the bridge girders and would typically be situated on rollers connected to steel braces that would be attached to the bridge girders. The rollers would be used to aid in the installation of the pipeline and would hold the pipeline in place after installation. Review of the original bridge drawings and preliminary engineering indicates that supporting the pipelines from the existing box girder bridge, where the pipeline would be inside the bridge, and providing the necessary reinforcement to each bridge would be feasible. Plans for individual bridge crossings would take place in the detailed engineering and design phase of the Proposed Action.

Major Street Crossings

Major streets often contain belowground infrastructure. Thus, where the proposed pipeline would cross major streets, boring may be required to allow the pipeline to pass under or across the street. The use of boring for street crossings would be determined during final design and review with permitting agencies (see the Bored Crossings section).

Staging Areas

Staging areas for equipment and grading spoils would be located outside of the 50-foot setback from any water features and within the road right-of-way to the extent feasible. Staging areas along both pipeline routes would be required for trench soil stockpiling and processing, equipment staging, and material transfer. An approximately 200-foot by 250-foot construction work area would be required for parking, laydown, and staging. The District has access to vacant property that would be used for this purpose.

Erosion and Sediment Control

Erosion and sediment control would be conducted in accordance with industry BMPs and a SWPPP that would be filed with the RWQCB. BMPs may include such measures as the following:

- Consider the degree to which pollutants may be exposed to and mobilized by contact with stormwater.
- Consider the direct and indirect pathways that pollutants may be exposed to stormwater.
- Confirm retention of visual observation/inspection records.
- Confirm effectiveness of existing BMPs to reduce or prevent pollutants in stormwater discharges.
- Preserve existing vegetation where required and when feasible.
- Apply temporary erosion control, straw rolls, and silt fences to active and non-active areas as described by the California Storm Water BMPs Handbook – Construction and Industry BMPs. Maintain as necessary to retain effectiveness.
- Implement temporary erosion control measures at regular intervals to achieve and maintain disturbed soil.
- Stabilize (e.g., by using hydroseeding, straw, mulch) non-active areas as soon as feasible after the cessation of construction activities.
- Control erosion in concentrated flow paths by applying erosion control blankets and lining swales.
- At the completion of construction, apply permanent erosion control to all remaining disturbed soil areas as needed.

2.1.1.2.12 Operations and Maintenance

Operation of the Proposed Action would occur 24 hours a day, 7 days a week, 365 days a year. Workers would be on site in rotating 8-hour shifts. A total of five employees would be required to staff the plant. Only security lighting would be provided, otherwise all lighting would be interior to the buildings.

The pipelines associated with the Proposed Action would be inspected, maintained, and repaired following completion of construction in accordance with regulatory requirements and in a manner consistent with good maintenance and repair practices. This would involve both routine preventative maintenance and emergency procedures to maintain service continuity.

The WWTF and reclaimed water pipe system are designed with a 50-year operational life span; however, with routine maintenance, the operational life span may be longer.

2.2 No Action Alternative

In accordance with Section 2.3.2.2, of the Guidance for the Preparation of Environmental Evaluations, this EA evaluates the No Action Alternative as well. The objective of the evaluation of a No Action Alternative is to describe the environmental consequences that may result if the Proposed Action were not implemented. The No Action Alternative forms the baseline from which the impacts of the Proposed Action can be measured.

Under the No Action Alternative, the grant request under the Rural Development Water and Wastewater Disposal Loan and Grant Program would not be approved by the USDA RD. As a consequence, the upgrade of wastewater and solids treatment systems; expansion of the WWTP treatment capacity; implementation of recycled water treatment systems; and, ancillary support facilities would not be able to be constructed as currently proposed.

3.0 Affected Environment and Environmental Consequences

This chapter identifies and describes the current condition and trend of elements or resources in the human environment which may be affected by the Proposed Action and the anticipated environmental consequences. Per the Council on Environmental Quality regulations found at 40 CFR 1508.8, “effects” and “impacts” are synonymous in this EA. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative.

3.1 Resources Not Considered

The following elements of the human environment listed below in Table 5, Supplemental Authorities to be Considered, are subject to requirements specified in statute, regulation, or executive order in addition to NEPA considerations, and either must be addressed in all EAs or determined to be not relevant to the proposal under consideration. If the resource is not present or is not affected by the Proposed Action or alternatives, this has been documented below.

Table 5. Supplemental Authorities to be Considered

Issue	Determination ¹	Rationale
Bald and Golden Eagle Protection Act	NP	Bald and golden eagle nests are not known to occur in the Proposed Action area. There is no habitat or nesting habitat present on site for the Golden or Bald Eagle. Thus, no nests are not close enough to proposed activities that the Proposed Action may directly affect nesting golden eagles or bald eagles.
Formally Classified Lands	NP	Formally Classified Lands (National Parks, Monuments, Landmarks, Wildlife Refuges, etc.) are not located within or near the Proposed Action area.
Coastal Zone Management Act	NP	The Proposed Action would not be constructed in coastal areas or within the Coastal Zone
Coastal Zone Barrier Resources Act	NP	The Proposed Action would not be constructed in coastal areas or within the Coastal Barrier Resources System
Corridor Analysis	NP	The Proposed Action would not impact any corridor areas.

Unless specified, affected environment describes the existing conditions of the Proposed Action area.

3.2 Land Use/Land Ownership

3.2.1 General Land Use

This section discusses potential impacts to land use and land use compatibility resulting from the implementation of the Proposed Action. The analysis is based on the review of existing ordinances, planning documents and applicable goals, policies, and implementation measures identified in planning documents.

3.2.1.1 Affected Environment

Regulatory Setting/Environmental Setting

Existing Land Use Plans

San Luis Obispo General Plan

The San Luis Obispo General Plan (General Plan) is the principal tool the County uses when evaluating municipal service improvements and land use proposals. California Planning Law requires the adoption of a comprehensive general plan. The General Plan has been prepared in accordance with state law, and has been adopted by the San Luis Obispo County Board of Supervisors. Every service the County provides to its citizens, including wastewater treatment, can trace its roots back to goals and policies found in the General Plan. All land use decisions are governed by the General Plan and must be consistent with the General Plan's direction. General Plan goals, policies, and implementation measures are based on an assessment of current and future needs and available resources.

The Land Use and Circulation Elements (LUCE) is part of the General Plan. It describes the official County policy on the location of land uses and their orderly growth and development and it correlates land use with transportation, and use decisions are based. The LUCE are two of the seven required general plan "elements." The LUCE coordinates policies and programs in other county general plan elements that affect land use and provides policies and standards for the management of growth and development in each unincorporated community and rural area of the County. The LUCE also serves as a reference point and guide for future land use planning studies throughout the county.

The land use maps in the LUCE illustrate long-term land use and growth policies, and they are adopted as the official zoning maps and used to evaluate current development proposals. In conjunction with the LUCE, the Land Use Ordinance (LUO) is the zoning ordinance and provides comprehensive development standards and review procedures. Together, the LUCE and LUO are an integrated land use policy and regulatory system. The policies of the LUCE and the enforceable standards of the LUO work together to ensure the compatibility of uses.

San Miguel Community Plan

Part III of the LUCE is comprised of 13 inland community and village plans. The Proposed Action area is in the San Miguel Community Plan, which was adopted by the County of San Luis Obispo Board of Supervisors on December 6, 2016. The San Miguel Community Plan (County of San Luis Obispo 2016b) establishes a vision for the future that will guide development through the year 2035. In 2035, San Miguel is projected to have about 3,650 residents. Although there are new areas where development can happen, most new growth will occur as infill development in existing neighborhoods and new cluster subdivisions and mixed housing developments east of the railroad. The plan contains goals, policies, programs and related background information for the San Miguel area.

Within the San Miguel Community Plan, the Proposed Action is on land that is designated as Public Facility (PF) or Residential Suburban (RS) uses. The RS designation is intended for lower-density single family housing. RS areas within San Miguel were not expected to be served by the community sewer system. As a result, new lots must be at least one acre in size or larger in accordance with the Land Use Ordinance. The 2013 Central Coast Basin Plan (see Section 3.6, Water Resources below) identified the need for additional sewer service in this area. The Public Facility land use category is for existing or planned public facilities within San Miguel, such as the WWTF.

The Proposed Action proposes to upgrade and expand the existing WWTF to meet the Central Coast RWQCB existing and anticipated WDRs, provide sufficient treatment for effluent flows up to the 30-year average daily flow of 0.470 million gallons per day, and provide recycled effluent that meets the requirements for either agricultural irrigation or groundwater recharge purposes.

Land Use Ordinance Zoning

Per the County of San Luis Obispo's LUO, the majority of the property included in the Proposed Action is zoned Public Facility (PF) (see Figure 3, San Miguel Community Services District Land Use Map). The PF zone is intended to provide for a wide range of public, cultural, and quasi-public uses that meet the needs of city and county residents, such as the existing WWTF.

The northerly property, which the District has purchased in conjunction with the WWTF upgrade is zoned Agriculture (AG). The AG zone is intended to encourage conservation of agricultural lands and continuation of agricultural uses where compatible with urban development and where there has been a history of agricultural cultivation.

3.2.1.2 Environmental Consequences

Proposed Action

WWTF

The WWTF portion of the Proposed Action site is occupied by the existing WWTF and undeveloped land directly to the north of the existing WWTF. Surrounding uses include commercial and residential areas to the west and south and open areas associated with the Salinas River to the north and east. The Proposed Action would occur on the northeastern edge of San Miguel and would not physically divide an established community.

In addition, the WWTF portion of the Proposed Action involves developing a public utility facility on parcels designated as PF and RS in the San Miguel Community Plan. The Proposed Action requires the completion of a Conditional Use Permit. Upon completion of the Conditional Use Permit with the County of San Luis Obispo, impacts are expected to be less than significant with mitigation.

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Figure 3 San Miguel Community Services District Land Use Map

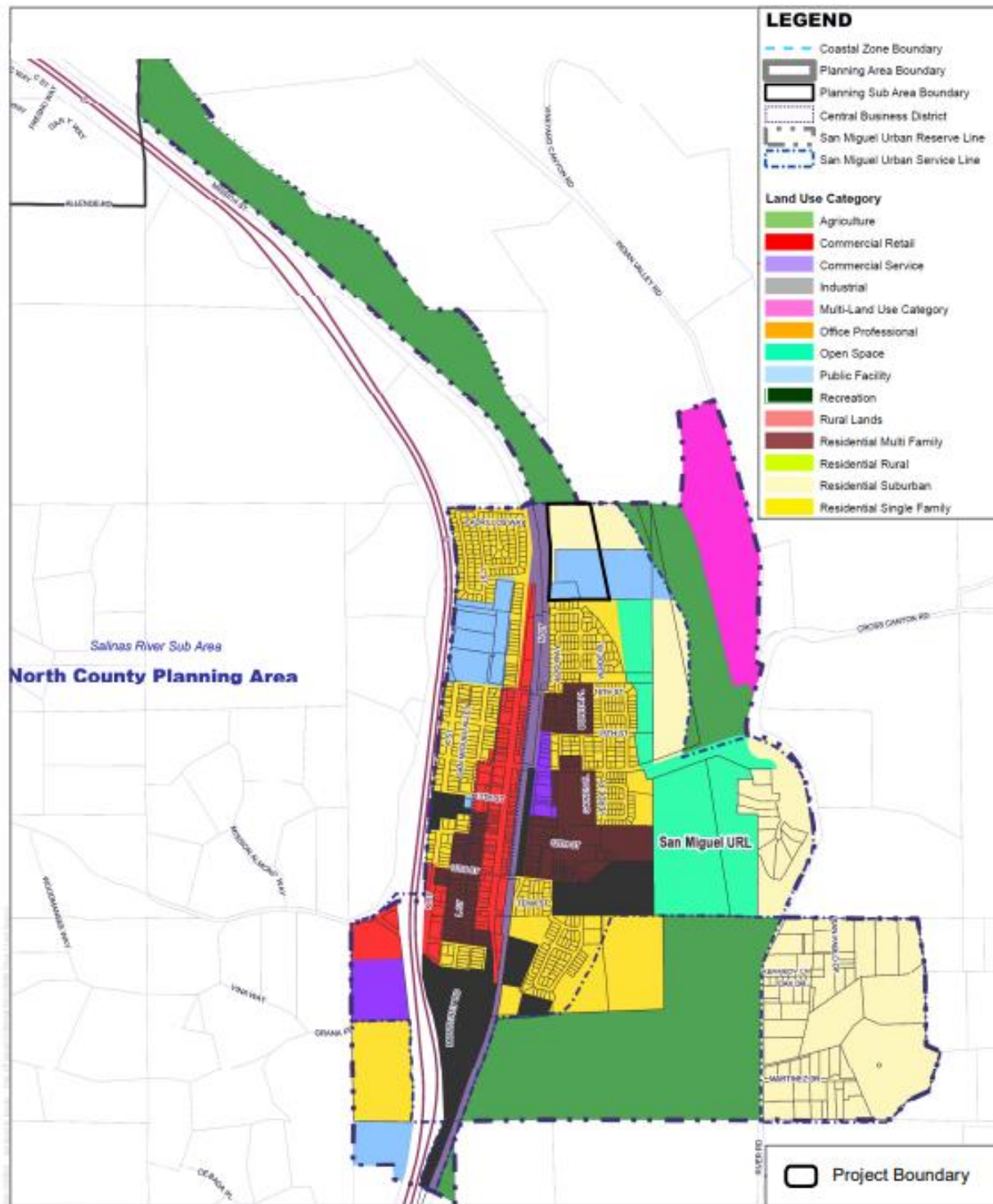


FIGURE 3

San Miguel Community Services District Land Use Map

SAN MIGUEL WASTEWATER TREATMENT PLANT UPGRADE/EXPANSION INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

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Optional Solar Component

Uses surrounding the optional solar component of the Proposed Action include commercial and residential areas to the west and south and open areas associated with the Salinas River to the north and east. This component of the Proposed Action would occur on the northeastern edge of San Miguel and would not physically divide an established community. Therefore, no impact would occur.

In addition, the Proposed Action involves developing the optional solar component on the northerly properties, which are designated primarily as RS and a small portion as AG. As discussed in more detail in Section 3.3.2 below, there are no agricultural uses occurring on site and based on farmland maps prepared by California Department of Conservation, the optional solar component portion of the Proposed Action site is not located in an area designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. In addition, the Proposed Action overall requires obtaining a Conditional Use Permit. Thus, with the completion of the Conditional Use Permit with the County of San Luis Obispo, impacts are expected to be less than significant with mitigation.

No Action Alternative

Under the No Action Alternative, the proposed expansion of the Machado WWTF or the optional solar component would not occur. As a result, no adverse impacts to land use and planning would occur as a result of this alternative.

3.2.1.3 Mitigation

No formal mitigation with the County of San Luis Obispo is required for the Proposed Action.

3.3 Important Farmland

This section discusses potential impacts to important farmland resulting from the implementation of the Proposed Action. Important farmland within the Proposed Action area was assessed using the California Important Farmland Finder, an online mapping tool managed by the California Department of Conservation. Important Farmland Maps are compiled by the Farmland Mapping and Monitoring Program pursuant to Section 65570 of the California Government Code. Land use status is determined using current and historic aerial imagery, supplemental Global Information System (GIS) data, and field verification.

3.3.1 Affected Environment

Regulatory Setting

Farmland Protection Policy Act

The National Agricultural Land Study of 1980-81 found that millions of acres of farmland were being converted in the United States each year. The 1981 Congressional report, Compact Cities: Energy- Saving Strategies for the Eighties, identified the need for Congress to implement programs and policies to protect farmland and combat urban sprawl and the waste of energy and resources that accompanies sprawling development. The Compact Cities report indicated that much of the sprawl was the result of programs funded by the federal government. With this in mind, Congress passed the Agriculture and Food Act of 1981 (Public Law 97-98) containing the Farmland Protection Policy Act (FPPA) subtitle I of Title XV, Section 1539- 1549. On June 17, 1994, the final rules and regulations were published in the Federal Register.

The FPPA is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that to the extent possible federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland. Federal agencies are required to develop and review their policies and procedures to implement the FPPA every two years. The FPPA does not authorize the federal government to regulate the use of private or nonfederal land or, in any way, affect the property rights of owners. For the purpose of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land. Proposed Actions are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency (NRCS 2021).

Environmental Setting

Geology

The Proposed Action area is within the Paso Robles Formation and consists of quaternary and tertiary surficial sediments. The PIA predominantly consists of alluvial clay and sand, and the adjacent Salinas River area consists of alluvial gravel and sand (Dibblee and Minch 2006). Alluvial deposits occur beneath the flood plains of the rivers and streams within the Subbasin. These deposits are typically no more than 100 feet thick and comprise coarse sand and gravel. The alluvium is generally coarser than the Paso Robles Formation, with higher permeability that results in well production capability that often exceeds 1,000 gallons per minute.

Underlying the alluvium is the Paso Robles Formation, with sedimentary layers of approximately 700 feet thick in the Proposed Action area. The Paso Robles Formation is derived from erosion of nearby mountain ranges. Sediment size decreases from the east and the west, becoming finer towards the center of the Paso Robles Subbasin, indicating sediment source areas are both to the east and west. The Paso Robles Formation is a Plio-Pleistocene, predominantly non-marine geologic unit comprising relatively thin, often discontinuous sand and gravel layers interbedded with thicker layers of silt and clay. The formation was deposited in alluvial fan, flood plain, and lake depositional environments. The formation is typically unconsolidated and generally poorly sorted. The sand and gravel beds in the Paso Robles Formation have a high percentage of Monterey shale gravel and have lower permeability compared to the overlying alluvial unit. The formation also contains minor amounts of gypsum and woody coal (Paso Robles Subbasin Groundwater Sustainability Plan, 2018).

Soil

Soil types within the Proposed Action area include Hanford and Greenfield soils, 0% to 2% slopes; Hanford and Greenfield soils, 2% to 9% slopes; and Metz loamy sand, 0% to 5% slopes. The primary soil type within the Salinas River area is Corducci-Typic Xerofluvents, 0% to 5% slopes, occasionally flooded, MLRA 14. The entire site has soils within Hydrologic Soil Group A (NRCS 2019).

Farmland

Farmland classification is provided as prime farmland, not prime farmland, or farmland of statewide importance. Prime farmland, as defined by the USDA, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be

cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0% to 6%.

More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service. In some areas, land that does not meet the criteria for prime or unique farmland is considered to be farmland of statewide importance for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods (NCRS, 2016).

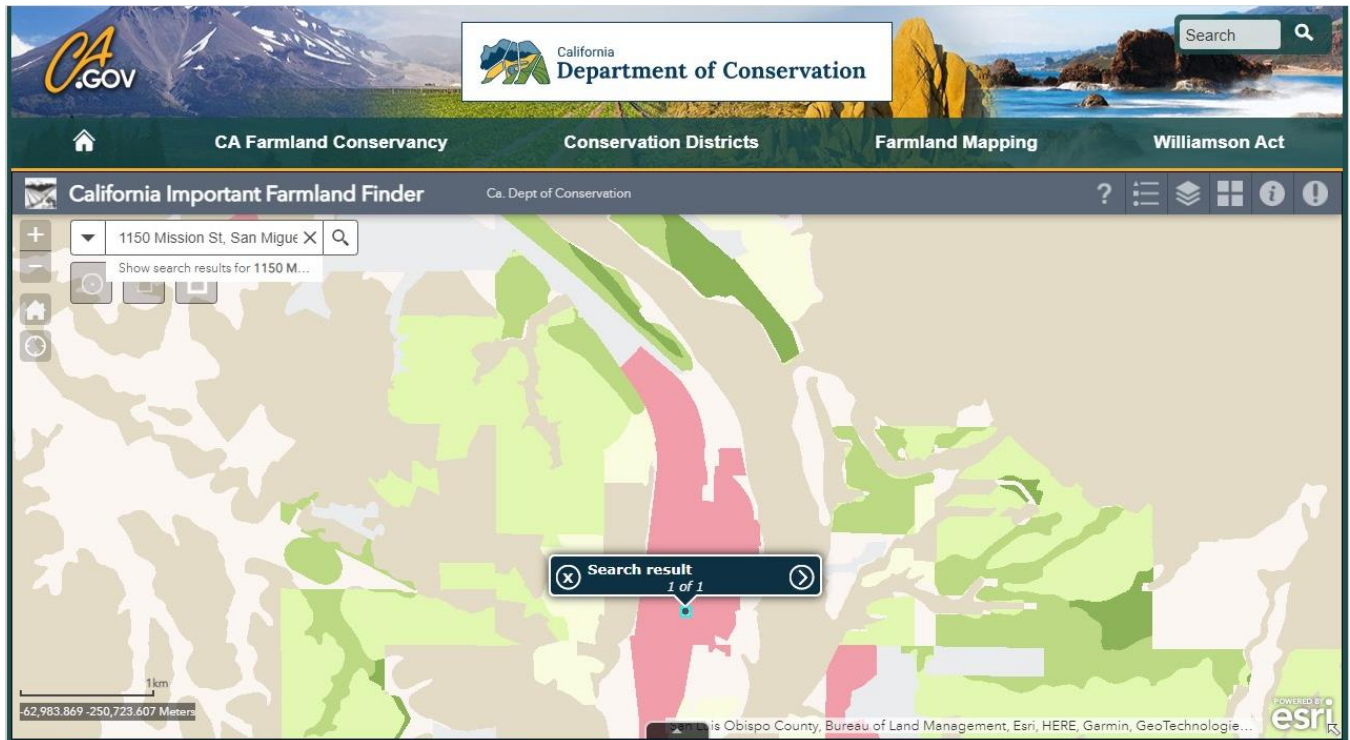
The Proposed Action site is designated as Urban and Built-Up Land by the Farmland Mapping and Monitoring Program (CDOC 2020) (see Figure 4, Farmland Mapping and Monitoring Program Designations). The areas adjacent to the Proposed Action site share the same land designation. The Proposed Action site does not support any forest land or timberland. The Proposed Action site does not contain a combination of acreage and/or soils that render the site an important agricultural resource. In addition, the Proposed Action site is not located within or immediately adjacent to land under an active Williamson Act contract.

Methods

As discussed above, important farmland within the Proposed Action area was assessed using the California Important Farmland Finder, an online mapping tool managed by the California Department of Conservation. Important Farmland Maps are compiled by the Farmland Mapping and Monitoring Program pursuant to Section 65570 of the California Government Code. Land use status is determined using current and historic aerial imagery, supplemental GIS data, and field verification.

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Figure 4 Farmland Mapping and Monitoring Program Designations



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3.3.2 Environmental Consequences

Proposed Action

WWTF

The WWTF portion of the Proposed Action site is currently occupied by the existing WWTF. No agricultural uses occur on site and the underlying soils include Hanford and Greenfield soils (2% to 9% slopes), Metz Loamy Sand, and Corducci-Typic Xerofluvents. The Natural Resources Conservation Service does not rate the WWTF portion of the Proposed Action site as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Farmland of Local Potential, or Grazing Land (CDOC 2016). The WWTF portion of the Proposed Action site is designated as Urban and Built-Up Land and Farmland of Local Potential based on the Important Farmland Map for San Luis Obispo County (CDOC 2016). Therefore, no impact to important farmland would occur.

Optional/Future Solar Component

The optional solar component of the Proposed Action is situated at northern portion of the Proposed Action site, approximately 500 feet north of the aeration ponds. There are no agricultural uses occurring on site and based on farmland maps prepared by California Department of Conservation, the optional solar component portion of the Proposed Action site is not located in an area designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, no impact to important farmland would occur.

In addition, the Proposed Action site is not under a Williamson Act contract. A small portion where the optional solar component would be is designated as agricultural use. The Proposed Action requires obtaining a Conditional Use Permit from the County of San Luis Obispo, as described in Section 3.2.1.2 above, , impacts would be less than significant.

No Action Alternative

Under the No Action Alternative, the proposed expansion of the Machado WWTF or optional solar component would not occur. As a result, no adverse impacts to important farmland would occur as a result of this alternative.

3.3.2.1 Mitigation

No formal mitigation with the County of San Luis Obispo is required for the Proposed Action.

3.4 Floodplains

This section discusses potential impacts to floodplains resulting from the implementation of the Proposed Action. The analysis is based on a hydrologic and hydraulic analysis performed by Monsoon Consultants in 2021 to determine the base flood elevations for the site (see Appendix B).

3.4.1 Affected Environment

Regulatory Setting

Executive Orders (EO) 11988 and 13690

EO 13690, which amends EO 11988, requires that federal agencies evaluate the potential effects of any actions they may take in a floodplain. Specifically, EO 11988 states that agencies shall first determine whether the proposed action will occur in a floodplain. EO 11988 defines a floodplain as an area that has a 1% or greater chance of flooding in any given year. Second, if an agency proposes to allow an action to be located in a floodplain, “the agency shall consider alternatives to avoid adverse effects and incompatible development in the floodplains,” which EO 13690 amended to add that, “[w]here possible, an agency shall use natural systems, ecosystem processes, and nature-based approaches when developing alternatives for consideration.” If the only practicable alternative action requires siting in a floodplain, the agency shall “minimize potential harm to or within the floodplain.” Additionally, EO 13960 established a Federal Flood Risk Management Standard for federal actions that are located in or affect floodplains, and also expanded the definition of a floodplain to which the Federal Flood Risk Management Standard would apply to those areas subject to flooding by the 0.2% annual chance flood (FEMA 2015).

Environmental Setting

The WWTF portion of the Proposed Action is located on the west side of the Salinas River. The eastern portion of the site is located within a FEMA Special Flood Hazard Area (Zone A) and contains approximately 20.6 acres. The remaining 17.8 acres, within which the existing WWTF is located, are designated Zone X by FEMA, indicating that there is a minimal risk of flooding in those areas. Base flood elevations for the Special Flood Hazard Area have not been established by FEMA; therefore, Monsoon Consultants performed a hydrologic and hydraulic analysis in 2021 to determine the base flood elevations for the WWTF site (Appendix B). Based on this analysis, the eastern portion of the Proposed Action site lies within a 100-year floodplain.

3.4.2 Environmental Consequences

Proposed Action

Under EO 11988, Floodplain Management, federal agencies funding and/or permitting critical facilities are required to avoid the 500-year floodplain or protect the facilities to the 500-year flood level (FEMA 2020). Monsoon Consultants provided base flood elevations for the 500-year flood at the site (Appendix B). Based on this analysis, the entire Proposed Action site would be inundated in the event of a 500-year flood. It is anticipated that federal funding would be used in part to finance this Proposed Action, which is considered a critical facility. As a result, FEMA would require that the Proposed Action treatment facilities be constructed above the 500-year base flood elevations or with a protective berm to prevent flooding of the facility in the event of a 500-year flood (FEMA 2020).

In addition, according to the Division of Safety of Dams of the Department of Water Resources, the Nacimiento Dam has been classified as an “Extremely High” downstream hazard potential (MCWRA 2020). In the unlikely event of a full dam breach, Embankment Failure Inundation Maps prepared show that the inundation area at the Proposed Action site is similar to the 100-year floodplain and less extensive than the 500-year floodplain. As a result, the 500-year floodplain is the design flood for the Proposed Action.

Construction of a protective berm or raising of the Proposed Action site grade above the 500-year flood plain would potentially impede or redirect flood flows, resulting in potentially significant impacts. However, based on 500-year flood modeling of post-construction conditions, flood elevations would increase a maximum of 4 inches over pre-construction flood elevations, which is considered negligible (Appendix B). As a result, impacts would be less than significant.

In the event of inundation, potential on-site contaminants, including untreated wastewater, screened solid waste, sludge, and trash, could be released downstream and into the neighboring environment, resulting in potentially significant impacts. Based on modeling completed for the Proposed Action site, the 500-year base flood elevation is 617 feet above mean sea level (amsl). However, based on preliminary Proposed Action plans, the entire footprint area of the WWTF was assumed to be 619 feet amsl, or 2 feet above 500-year flood levels. As a result, the Proposed Action facilities would not be subject to flooding and associated risk of risk of pollutants. Impacts would be less than significant.

No Action Alternative

Under the No Action Alternative, the proposed expansion of the Machado WWTF or the optional solar component would not occur. As a result, the direction of flooding water on the Proposed Action site would not change or be impeded as a result of this alternative.

3.4.3 Mitigation

No mitigation measures are required for the Proposed Action.

3.5 Wetlands

This section discusses potential impacts to wetlands that may be considered “Waters of the United States” resulting from the implementation of the Proposed Action. The analysis is based reconnaissance surveys of potential aquatic resources within and adjacent to the Proposed Action site performed by Dudek biologists in 2021.

3.5.1 Affected Environment

Regulatory Setting

Wetlands and Waters of the United States

Natural drainage channels and adjacent wetlands may be considered “Waters of the United States” subject to jurisdiction of U.S. Army Corps of Engineers. The extent of jurisdiction has been defined in the CFR and is subject to interpretation of federal courts. The U.S. Army Corps of Engineers regulates the filling or dredging of Waters of the United States under the authority of Section 404 of the Clean Water Act (CWA). The extent of jurisdiction within drainage channels is defined by “ordinary high water mark” on opposing channel banks. All activities that involve the discharge of dredge or fill material into Waters of the United States are subject to the permit requirements of the U.S. Army Corps of Engineers. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in “no net loss” of wetland functions or values. No permit can be issued until the United States Environmental Protection Act (USEPA) issues a Section 401 Water Quality Certification verifying that the proposed activity will meet water quality standards.

The term “Waters of the United States” is defined as:

- All waters currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use or degradation of which could affect interstate or foreign commerce including any such waters; or
- Tributaries of waters identified in the bulleted items above.

The term “Wetlands” is defined as:

- Waters of the United States that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands that meet these criteria during only a portion of the growing season are classified as seasonal wetlands.

Waters of the State

Native Plant Protection Act of 1977 and implementing regulations in §1900 et seq. of the California Fish and Game Code designate special-status plant species and provide specific protection measures for identified populations. The CDFW administers the Native Plant Protection Act.

Environmental Setting

No aquatic resources delineation was conducted for the Proposed Action site, but the reconnaissance surveys noted the location of potential aquatic resources within and adjacent to the Proposed Action site and along the proposed water pipeline alignment. No potential aquatic resources occur within the existing WWTF, but riparian vegetation occurs adjacent to the WWTF and to the proposed expansion area. The proposed water pipeline crosses the Salinas River and associated riparian vegetation and also crosses several ephemeral streams east of the Salinas River, along River Road. All of these crossings occur along existing roads.

3.5.2 Environmental Consequences

Proposed Action

WWTF and Optional Solar Panels

No potential wetlands, Waters of the United States, or Waters of the State occur within the existing WWTF or the proposed expansion area. Riparian vegetation associated with the Salinas River occurs adjacent to the WWTF but impacts in this area will be confined to areas of existing development. Impacts in the proposed expansion area for creation of a treatment processing pad and all-weather access road will occur more than 50 feet from any potentially jurisdictional aquatic resources associated with the Salinas River. The optional/future solar component would be constructed west of the proposed Salinas River Trail, and therefore would be more than 50 feet from the riparian vegetation.

Reclaimed Water Pipe System

The proposed water pipeline would cross the Salinas River along River Road, but all impacts would be above the bridge deck and no work would occur within the river or associated riparian vegetation. The proposed pipeline would also cross three ephemeral streams that are assumed to be under the jurisdictions of CDFW and the RWQCB as Waters of the State. However, work would occur through direction drilling, through the existing road berm, to avoid impacts to aquatic resources, including Waters of the United States

Although no direct impacts would occur to wetlands or Waters of the United States or State from any of the Proposed Action components, some potential exists for indirect impacts through storm runoff, erosion, and other water quality impacts. These impacts could occur from construction within the existing WWTF, within the expansion area (including during construction of the optional solar component), and along the proposed water pipeline. However, as detailed in the Erosion and Sediment Control section above (Section 2.1.1.2.11), the Proposed Action will include BMPs and a SWPPP that would be filed with the Central Coast RWQCB. SWPPPs are required for Proposed Actions with ground disturbance of more than 1 acre, in compliance with the National Pollutant Discharge Elimination System Construction General Permit. The SWPPP must include erosion control measures such as covering exposed soil stockpiles and working slopes, lining the perimeter of the construction site with sediment barriers, and protecting storm drain inlets. BMPs would include such standard measures as application of temporary straw rolls and silt fences. In addition, the SWPPP would require visual observation and inspection records of BMPs and confirmation that BMPs are effective. In addition, several other measures would further ensure that no impacts occur to wetlands and waters. MM BIO-1 would require biological monitoring of construction, and would further ensure that BMPs are maintained. MM BIO-2 would require that a worker environmental awareness program be prepared and presented to workers, and MM BIO-3 would include additional construction measures protecting biological resources, including the requirement that all refueling stations be located at least 100 feet from riparian vegetation. Because the Proposed Action would not result in direct impacts to wetlands, riparian vegetation, or Waters of the United States or State; because of the requirement to prepare and implement a SWPPP; and because the Proposed Action will implement MM BIO-1, MM BIO-2, and MM BIO-3, Proposed Action impacts to state or federally protected wetlands would be less than significant with mitigation incorporated.

No Action Alternative

Under the No Action Alternative, the proposed expansion of the Machado Wastewater Treatment Plant would not occur. As a result, no adverse impacts to wetland resources would occur as a result of this alternative.

3.5.3 Mitigation

Implementation of MM-BIO-1 - Biological Monitoring, MM-BIO-2 – Worker Environmental Awareness Program, and MM-BIO-3 – Additional Construction Measures are required for the Proposed Action.

3.6 Cultural Resources

This section discusses potential impacts to cultural resources resulting from the implementation of the Proposed Action. Information in this section was obtained from a Cultural Resources Investigation conducted by Dudek in 2021 in support of the Proposed Action. The archaeological resources investigation included a cultural resources site records and literature search at the Central Coast Information Center), University of Santa Barbara, California,

a review of the Native American Heritage Commission's (NAHC's) Sacred Land File, and an intensive surface survey covering the accessible portions of the Proposed Action site. The Proposed Action site includes APNs 021-051-013, -015, -016 and -017, including the general location of the potential recycled water conveyance system alignment.

3.6.1 Affected Environment

Regulatory Setting

Section 106 of the National Historic Preservation Act

The Section 106 review process is an integral component of the National Historic Preservation Act (NHPA) that requires federal agencies to identify and assess the impacts they're actions may have on cultural resources. Under the review process, each federal agency must consider public views and concerns about historic preservation issues when making final Proposed Action decisions. The cultural and historic significance of a property is evaluated using established criteria outlined in 36 CFR§60.4. If a Proposed Action would have an adverse impact on significant cultural or historic resources then the federal agency must implement feasible mitigation measures to reduce or avoid impacts. The State Historic Preservation Officer (SHPO) must be provided an opportunity to review and comment on mitigation measures prior to implementation of the proposed action.

National Register of Historic Places

The National Register of Historic Places (NRHP) is the United States' official list of districts, sites, buildings, structures, and objects worthy of preservation. Overseen by the National Park Service, under the U.S. Department of the Interior, the NRHP was authorized under the National Historic Preservation Act, as amended. Its listings encompass all National Historic Landmarks and historic areas administered by the National Park Service.

NRHP guidelines for the evaluation of historic significance were developed to be flexible and to recognize the accomplishments of all who have made significant contributions to the nation's history and heritage. Its criteria are designed to guide federal agencies, state and local governments, and others in evaluating potential entries in the NRHP. For a property to be listed in or determined eligible for listing, it must be demonstrated to possess integrity and to meet at least one of the following criteria:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of persons significant in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded, or may be likely to yield, information important in prehistory or history.

Integrity is defined in NRHP guidance, *How to Apply the National Register Criteria for Evaluation*, as “the ability of a property to convey its significance. To be listed in the NRHP, a property must not only be shown to be significant under the NRHP criteria, but it also must have integrity” (NPS 1990). In assessing historic integrity, the NRHP recognizes seven aspects or qualities that, in various combinations, define integrity. In order to retain historic integrity “a property will always possess several, and usually most, of the aspects” (NPS 1990). The seven aspects of integrity are: location, design, setting, workmanship, materials, feeling, and association. NRHP guidance further asserts that properties be completed at least 50 years ago to be considered for eligibility. Properties completed fewer than 50 years before evaluation must be proven to be “exceptionally important” (criteria consideration G) to be considered for listing.

State

California Register of Historical Resources

In California, the term “historical resource” includes “any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California” (PRC Section 5020.1[j]). In 1992, the California legislature established the California Register of Historical Resources (CRHR) “to be used by state and local agencies, private groups, and citizens to identify the state’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC Section 5024.1[a]). The criteria for listing resources on the CRHR, enumerated as follows, were developed to be in accordance with previously established criteria developed for listing in the NRHP, enumerated as follows. According to PRC Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains “substantial integrity” and (ii) meets at least one of the following criteria:

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

To understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (see 14 CCR 4852[d][2]).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Health and Safety Code Section 7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the county coroner has examined the remains (Health and Safety Code Section 7050.5(b)). PRC Section 5097.98 also outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (Health and Safety Code Section 7050.5(c)). The NAHC would notify the “most likely descendant” (MLD). With the permission of the landowner, the most likely descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the MLD by the NAHC. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

Environmental Setting

Prehistoric Context

Research on the prehistory of California’s Central Coast and the Southern Coast Ranges began in the early 1900s, though most of the work has been conducted since the 1960s. On the basis of both primary synthetic research (e.g. Pohorecky 1976; Bouey and Basgall 1991; Greenwood 1972; Bertrando and Levulett 2004; Betts and Foster 2001; Reinman 1961; Jones 1996) Terry Jones and colleagues (Jones et al. 2007) provide perhaps the most current overview of prehistoric adaptive change for a region that includes the coastal and interior areas from San Mateo County in the north to San Luis Obispo County in the south.

The temporal framework promoted by Jones et al. (2007), and others (Farquhar et al. 2011; Stevens et al. 2013), spans a period of approximately 10,000 to 12,000 years and is divided into six different periods. The periods track perceived changes in prehistoric settlement patterns, subsistence practices, and technological advances. These adaptive shifts are identified by changes in material culture found in the archaeological record.

Additional information regarding the prehistoric setting of the Proposed Action can be found in the Cultural Resources Investigation in Appendix C.

Historic Context

The historic occupation of the Proposed Action vicinity can be divided into three settlement periods: the Mission Period (A.D. 1769–1830), the Rancho Period (ca. A.D. 1830–1865), and the American Period (ca. A.D. 1865–1915). Construction of Mission San Miguel in 1797 altered both the physical and cultural landscape of the region. The mission was the center of Spanish influence in the region and affected native patterns of settlement, culture, trade, industry, and agriculture. Following the secularization of the missions by the Mexican Government in 1821, California became part of the Republic of Mexico.

Secularization of lands and a focus on cattle raising marked the Rancho Period, where large land grants of mission lands were ceded to wealthy, prominent Spanish families. Native Americans continued to work as laborers on ranchos during this period. With California statehood in 1850 and the advent of the American Period, farming and more intensive land uses steadily replaced cattle stock raising. Cattle ranching was substantially curtailed by a prolonged drought in the 1860s.

Previously Recorded Cultural Resources

CA-SLO-1271 is a prehistoric site measuring 240 meters north to south and 30 meters east to west (790 feet by 100 feet) at an elevation of 615 feet amsl and is located within the WWTF and is documented as consisting of burnt granite rock, chert debitage as well as a Pismo clam shell and a cut animal bone of historic age and was originally formally recorded in 1989 and described as a low-density concentration of heat-treated granite and chert artifacts. Although not documented in the official site record, a review of previously conducted cultural resources studies revealed that a Phase II significance evaluation was conducted in 2004 (Stewart) that determined CA-SLO-1271 as not significant and no further testing or avoidance was recommended.

CA-SLO-65 is a historic site that includes the San Miguel Mission and immediately surrounding area and is located approximately less than 25 meters (82 feet) southwest of the Proposed Action site's potential conveyance system pipeline and Father Reginald Park/9th Street Turn Out. CA-SLO-65 is documented as consisting of the Mission adobe, the Mission Cemetery, historic refuse, and artifacts related to the habitation of Native Americans at the San Miguel Mission. The site was originally formally recorded in 1949 and described as an "early Caucasian site in the Mission region." CA-SBA-65 was revisited in 1966 and resulted in the recordation of a shell midden containing animal bones and chipped stone in the area directly north of the Mission cemetery. CA-SBA-65 was again formally recorded in 1999 and as a result of this recordation, the site boundary of resource site CA-SBA-65 was extended to the west beyond the railroad right-of-way. The San Miguel Mission Archangel was listed on the NRHP in 1971, however, no formal record of evaluation for the shell midden containing animal bones and chipped stone identified in 1966 was provided within the Central Coast Information Center records.

CA-SLO-67 is a multicomponent site, consisting of both prehistoric and historic period resources, measuring approximately 30 by 10 meters (100 by 35 feet) at an elevation of 550' amsl and is located approximately 10 meters (32 feet) south of the Proposed Action site's potential conveyance system pipeline and Father Reginald Park/9th Street Turn Out. CA-SLO-67 is described as a dark midden with medium marine shell content that has likely been minimized in size due to modern development with the historic component of the site consisting of reportedly the former camp site of Lt. Col. John C. Fremont. The site was originally formally recorded in 1966 and described the site as consisting of dark midden with medium density shell, bone and teeth, food refuse and stone flakes. No formal record of evaluation was provided within the Central Coast Information Center records for this resource.

Table 3.5.2-1 in Appendix C summarizes all previously recorded cultural resources within 1-mile of the Proposed Action site.

Historic Aerials

Aerial images were compared to better understand prior landform alteration and land use. Historic aerials are available for the years 1937, 1939, 1949, 1963, 1969, 1978, 1987, 1994, and 2002 (UCSB 2020). Review of historic aerials show the surface of the Proposed Action site, where the WWTF is located, has been repeatedly disturbed by agriculture, grading and construction since at least 1937. The parcel north of the WWTF has only been subject to grading and agricultural disturbance and the earliest known development of the southern parcels first occurred in the early 20th century with residential structures located in the southwest portion and was subject to varied development until commencement of the WWTF in the early 1970s. Review of the historic aerials also show the potential recycled water conveyance system pipeline route west of the Salinas River and the bridge crossing the Salinas River was developed since at least 1937. The section of River Road east of the Salinas River was developed as early as 1978.

Field Surveys

Dudek conducted an intensive archaeological survey of the Proposed Action site containing the WWTF (APNs 021-051-013, -015, and -017) on June 24, 2020, and the route of the potential recycled water conveyance system pipeline, which includes Mission Street between Monterey Road and 20th Street, N Street between 14th Street and 20th Street, 12th Street, 14th Street, 16th Street, Indian Valley Road, and North River Road between N Street and Estrella Road on December 16, 2020.

The survey within the WWTF was divided into two parcels during the survey; a northern parcel (APN 021-051-017) that is void of development and two southern parcels (APN 021-051-013 and APN 021-051-015) that are currently occupied by four aerated lagoons, three percolation ponds and one drying bed. While the survey in the northern parcel identified items potentially historic in nature, including a pull-tab can, a piece of ceramic, and a horseshoe, the items did not include makers' markings or evidence for typology and were intermixed with modern debris.

As a result, the debris scatter was not identified or recorded as an archaeological site or loci of a nearby previously recorded archaeological site. The southern parcel of the WWTF also resulted in the identification of potentially historic debris along the Proposed Action boundary at the intersection of APN 021-051-017 and APN 021-051-015. The debris is consistent with the results of a previously conducted pedestrian survey (Dills 1993) and with the location of an early 20th century structure depicted on historic aerials. However, the debris concentration was highly disturbed and intermixed with modern materials and is partially interrupted and truncated by the facility's entrance road. These observations are consistent with Dills (1993) account and therefore, the observed resources within the southern parcel were determined by Dills (1993) and this study to not warrant recordation as an archaeological site much less be significant. Attempts were made to locate the previously identified prehistoric archaeological site (CA-SLO-1271) within the southern parcel. However, the recorded boundary of the northern portion of the archaeological site is consistent with the current location of an access road and an aerated lagoon obscuring ground surface visibility.

Note: the level of disturbance and lack of cultural material is consistent with findings of previous surface and subsurface archaeological investigations (Gibson 1993; Stewart 2004); the latter of which determined that archaeological site CA-SLO-1271 is not considered significant, and no further testing or avoidance was recommended. No prehistoric cultural resources were observed within or near the reported boundary of CA-SLO-1271 or within the entirety of both southern parcels.

The survey of the potential recycled water conveyance system pipeline, which would primarily extend through approximately 75% the downtown area of San Miguel through residential, commercial, and developed areas and approximately 25% through the more rural surrounding community to the east of the downtown area did not result in the identification of cultural resources. The potential recycled water conveyance system pipeline through the town of San Miguel was completely obscured by pavement along the entire extent of the proposed pipeline providing no ground surface visibility. However, landscaped areas present between the street and adjacent sidewalk were sporadically planted with ornamental vegetation and trees, resulting in very good to excellent (70% to 100%) ground surface visibility. No cultural resources were observed within the potential pipeline route under generally reliable conditions.

3.6.2 Environmental Consequences

Proposed Action

Based on a review of previous archaeological records, historical aerial photographs, and the field survey, the Proposed Action Site does not contain any visible sacred, cultural, or other archaeological resources; nor is the Proposed Action Site part of a defined traditional cultural landscape or known Traditional Cultural Property. As a result, the Proposed Action is unlikely to have an adverse impact on cultural resources. Nonetheless, inadvertent discoveries of cultural resources, including archaeological resources, human remains, or paleontological resources could occur during future construction of the Proposed Action, resulting in a potential direct long-term adverse impact. The Proposed Action would be subject to Section 106 of the NHPA as amended (36 CFR 800), NAGPRA (25 USC 3001 et seq.), and the Archaeological Resources Protection Act of 1979 (16 USC 470aa-mm). In addition, adoption of mitigation measures MM-CUL-1 through MM-CUL-5, would be implemented to ensure impacts to cultural and paleontological resources would not be significant. Construction methods for the WWTF expansion would not result in any adverse impacts to the Mission San Miguel or other historic properties. As a result, SHPO and THPO consultation is not required for this Proposed Action.

No Action Alternative

Under the No Action Alternative, the proposed expansion of the Machado Wastewater Treatment Plant or the optional solar facility would not occur. As a result, no adverse impacts to cultural or archaeological resources would occur as a result of this alternative.

3.6.3 Mitigation

Implementation of MM-CR-1 - Cultural Resource Monitoring and Inadvertent Discovery Plan, MM-CR-2 - Workers Environmental Awareness Program (WEAP) Training, MM-CR-3 - Archaeological Construction Monitoring, MM-CR-4 - Inadvertent Discovery of Archaeological Resources, and MM-CUL-5 - Inadvertent Discovery of Human Remains are required for the Proposed Action. With implementation of these mitigation measures impacts to cultural resources would be less than significant.

3.7 Biological Resources

3.7.1 General Fish, Wildlife and Vegetation

This section discusses potential adverse effects to fish, wildlife and vegetation resulting from the implementation of the Proposed Action. The analysis below is based upon a literature review performed by Dudek biologists in 2021 in order to identify the potential for sensitive species that are known to occur or may potentially occur in the vicinity of the Proposed Action site. The literature reviewed includes queries of the California Natural Diversity Database (CNDDB), California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants, the U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC) website, and the U.S. Department of Agriculture soil survey for information relevant to the vicinity of the Proposed Action site.

3.7.1.1 Affected Environment

The following discussion describes the vegetation communities and general biological resources in the Proposed Action site (site), as well as within a 500-foot buffer of the site (study area).

Regulatory Setting

Endangered Species Act

The USFWS enforces the provisions of the federal Endangered Species Act (ESA) for all terrestrial species. Provisions of the ESA, as amended (16 USC 1531), protect federally-listed threatened and endangered wildlife and their habitat from take (50 CFR §17.11, 17.12). Under the ESA, “take” includes activities that “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect” as well as any “attempt to engage in any such conduct” (16 USC 1531[3]). USFWS defines the term “harm” to include “significant habitat modification or degradation” (50 CFR §17.3). On June 29, 1995, the Supreme Court ruled that harm may include habitat modification “where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering” (U.S. No. 94-859; [1995]). If “take” of a listed species is necessary to complete an otherwise lawful activity, this triggers the need for consultation under Section 7 of the ESA for federal agencies. A Section 7 Biological Opinion with incidental take provisions from the USFWS would be required.

The USFWS and the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NMFS) implement §10(a)(1)(b) of the ESA, which allows non-federal entities under consultation with the USFWS and NMFS to obtain incidental take permits for federally listed wildlife. Compliance with §10(a)(1)(b) is not required for federally-listed plants.

Pursuant to the requirements of the ESA, a federal agency reviewing a Proposed Action within its jurisdiction must determine whether any federally-listed species may be present on the alternative sites and whether the Proposed Action would have a potentially significant impact on such species. A discussion of regionally-listed species is provided in consideration of potential impacts associated with Proposed Action implementation under each alternative below. Under the ESA, habitat loss is considered to be an impact to the species. In addition, the agency is required to determine whether the Proposed Action is likely to jeopardize the continued existence of any species that is proposed for listing under the ESA or to result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC §1536[3], [4]). Therefore, should it be determined that a Proposed Action would result in impacts to these species, or their habitats, it would be considered significant and require mitigation.

Critical Habitat

Critical habitat is defined under the ESA as specific geographic areas within a listed species range that contain features considered essential for the conservation of the listed species. Designated critical habitat for a given species supports habitat deemed by USFWS to be important for the recovery of the species. Under ESA, habitat loss is considered to be an impact to the species.

Native Plant Protection Act of 1977

The Native Plant Protection Act of 1977 and implementing regulations in §1900 et seq. of the California Fish and Game Code designate special-status plant species, and provide specific protection measures for identified populations. The CDFW administers the Native Plant Protection Act.

Environmental Setting

The WWTF, the expansion area, and the pipeline route extend to much of the community of San Miguel and the surrounding area. The Salinas River is adjacent to the WWTF and adjacent to the pipeline crossing at N. River Road. The WWTF, which is entirely fenced, includes several existing structures, lined and unlined ponds used in the treatment process, unpaved roads, berms around the ponds and other maintained areas, and minimal ornamental vegetation. The expansion area is located immediately north of the WWTF and is largely disked and maintained fallow agriculture. The Salinas River, which includes extensive riparian vegetation and aquatic habitat within the river channel, is immediately east of the WWTF and expansion area. The proposed pipeline route originates at the northwest corner of the WWTF. An eastern section extends southward from the WWTF vicinity, along the UPRR, and extends to the east across the Salinas River, at N. River Road. The eastern pipeline continues east and south along N. River Road for approximately 1.0 mile. A spur of this eastern segment extends north from N. River Road for 0.25 miles, where it parallels the east side of the Salinas River. A second segment of the pipeline extends north from the WWTF, to the northwestern corner of the expansion areas, then turns west across the UPRR, to Mission Street. From here, it extends along Mission Street for approximately 1.4 miles, to the southern end of the community. Two separate spurs extend westward from Mission Street, within the community of San Miguel, for approximately 0.15 miles each. The eastern portions of the pipeline route occur along roads in a largely rural area east of the Salinas River, while the western portions occur in the urban part of the community. The proposed pipeline route occurs within extensive urban/developed areas in the community of San Miguel, and also occurs adjacent to vineyards and rural residences east of the Salinas River, a patchy distribution of grassland habitat and oak woodland near the eastern pipeline segments, and the Salinas River and associated riparian. Areas of direct effects of the Action would be limited to existing development (existing WWTF and the pipeline route) and an area of mostly fallow agriculture in the expansion area.

Methods

Dudek conducted two biological surveys for the Proposed Action. A reconnaissance-level survey was conducted of the WWTF on June 11, 2020, and on the same date Dudek conducted a special-status plant species survey and a San Joaquin kit fox (*Vulpes macrotis mutica*) assessment, focusing on the expansion area north of the existing facility. Dudek conducted a reconnaissance survey of the proposed water pipeline alignment on November 18, 2020. During both surveys, Dudek biologists noted presence of potential aquatic resources, including wetlands and waters of the United States and state; noted habitat conditions for special-status plant and animal species; and recorded all plant and animal species encountered. Prior to conducting surveys, Dudek conducted a literature review, consulting sources such as the CNDDDB (CDFW 2021a), the CNPS's Inventory of Rare and Endangered Plants (CNPS 2021a), the National Wetlands Inventory (USFWS 2021), and the USFWS's Information for Planning and Consulting website, to determine potentially occurring sensitive biological resources. The CNDDDB and CNPS queries included all species occurring in the following U.S. Geological Survey quadrangles: Adelaida, Bradley, Estrella, Paso Robles, Ranchito Canyon, San Miguel, Stockdale Mountain, Valleton, and Wunpost. Dudek also reviewed the San

Miguel Community Plan (County of San Luis Obispo 2016b) for biological resources policies and additional information on special-status species considered to have the potential to occur in the area.

For the purpose of the analysis presented in this section, special-status plant species are those plants:

- Listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS under the federal Endangered Species Act;
- Listed or proposed for listing as threatened or endangered by CDFW under the California Endangered Species Act;
- Occurring on CDFW's *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2021b);
- Or considered California Rare Plant Rank 1 or 2 in the Inventory of Rare and Endangered Plants of California (CNPS 2021a).

Special-status wildlife species are defined as those that are:

- Listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS under the federal Endangered Species Act;
- Listed or proposed for listing as threatened or endangered by CDFW under the California Endangered Species Act;
- Are of expressed concern to resource/regulatory agencies or local jurisdictions. This includes wildlife that are considered a state Species of Special Concern or are on the CDFW Watch List.

Vegetation mapping of the Proposed Action site was conducted based on the California Natural Community List (NCL) (CDFW 2020) and the web-based version of the Manual of California Vegetation (CNPS 2021b), which use the scientific name of the dominant species in that alliance as the alliance name. Both are based on the Manual of California Vegetation, Second Edition (MCV2) (Sawyer et al. 2009). The NCL and MCV2 focus on a quantified, hierarchical approach to vegetation classification that includes both floristic (plant species) and physiognomic (community structure and form) factors as currently observed (as opposed to predicting climax or successional stages). The California Native Plant Society launched the web-based version of MCV2 in 2015, which provides up-to-date rarity rankings and vegetation community descriptions (CNPS 2021a). Communities with a global rarity ranking of G1 to G3 or a state rarity ranking of S1 to S3 are considered sensitive.

Vegetation mapping was performed in the field during the rare plant survey, through interpretation of field maps with a high-quality aerial photographic base and/or delineation using a mobile field app supporting detailed aerial imagery and displayed on an iPhone. The Global Positioning System (GPS) data was downloaded into GIS ArcView for placement onto an aerial figure. In combination with the GPS data, a geographic information system technician digitized the delineated vegetation boundaries from field maps using ArcView to create the vegetation community map.

Results

The proposed expansion area to the north is agricultural land that is regularly disced and had been disced within several months prior to the site visit in June 2020. The majority of the Proposed Action site, including approximately half of the existing WWTF and the area nearer the Salinas River, is occupied by Metz loamy sand, 0% to 5% slopes, a relatively deep soil type suited to agricultural purposes. Nearly all of the remaining portion of the Proposed Action site is occupied by Hanford and Greenfield soils, a fine sandy loam. Xerofluents, which are sandy flood plain areas, occupy a very limited area in the northeastern part of the Proposed Action site.

The Salinas River floodplain and associated riparian vegetation are to the east of the WWTF and the expansion area, undeveloped land is to the north, and the UPRR is to the west. Residential development occurs both south of the WWTF and farther west of the UPRR. Development associated with the community of San Miguel extends for approximately 1.0 mile south of the WWTF and approximately 0.25 miles west of the UPRR, to U.S. Highway 101. The Salinas River and associated riparian vegetation partly encircle the central, urban portion of the community of San Miguel to the north, east, and south. Residential development is more scattered west of U.S. Highway 101, and an extensive area of vineyards extends for more than 1.0 mile east of the San Miguel Community Plan Area. This nearly continuous block of vineyards, with scattered residences, also extends southward along the east side of the river for more than 2.0 miles south of San Miguel. The lower slopes of the Cholame Hills extend into Monterey County to the north and northeast.

Habitats and Vegetative Communities

The Proposed Action site (the WWTF and expansion area) supports a minimal amount of natural vegetation associated with the Salinas River and limited areas of maintained California annual grasslands, but otherwise supports only anthropogenic land covers, notably developed and agriculture. In all, the area supports five vegetation communities and land covers, including one sensitive riparian community occurring in a very limited area along the eastern boundary: Fremont cottonwood forest alliance. The existing WWTF is considered developed. Descriptions of land covers and vegetation communities occurring in the area are provided below. Table 6 does not include the proposed water pipeline alignment, which occurs entirely within existing roads and development.

Table 6. Summary of Vegetation Communities and Land Cover Types, WWTF and Expansion Area

Physiognomic Category	General Habitat	Vegetation Communities	Rarity Ranking Global/State ¹	Acres within Proposed Action Site
Herbaceous Alliances and Stands (Upland)	Grassland	California Annual Grassland	N/A	0.91
Herbaceous Alliances and Stands (Upland) Total				0.91
Forest and Woodland Alliances	Woodlands	Fremont Cottonwood Forest Alliance	G4/S3	0.04
Forest and Woodland Alliances Total				0.04
Anthropogenic Land Covers	N/A	Agriculture	N/A	7.54
		Disturbed	N/A	0.82
		Ornamental	N/A	0.03
		Developed	N/A	9.50
Anthropogenic Land Covers Total				17.89
Grand Total				18.83

California Annual Grasslands. California annual grasslands is described in Holland (1986). It does not have a global or state rarity ranking. Annual grassland is characterized by weedy, introduced annuals, primarily grasses, including wild oat (*Avena* spp.), bromes (*Bromus diandrus*, *B. madritensis*, *B. hordeaceus*), black mustard (*Brassica nigra*), filaree (*Erodium* spp.), and prickly Russian-thistle (*Salsola tragus*). It may occur where disturbance by maintenance

(e.g., mowing, scraping, disking, spraying), grazing, repetitive fire, agriculture, or other mechanical disruption has altered soils and removed native seed sources from areas formerly supporting native vegetation. Based on historical aerial imagery, California annual grassland within the survey has been subject to maintenance (such as mowing) in the past. However, no recent sign of maintenance was observed during vegetation mapping. Dominant species in the survey area include ripgut brome (*Bromus diandrus*), wild oat, rescuegrass (*Bromus catharticus*), and black mustard. California annual grasslands occupy approximately 0.91 acres within the Proposed Action site.

Fremont Cottonwood Forest. The Fremont cottonwood forest alliance is described in MCV2 and NCL and has a global rank of G4 and a state rank of S3 (CDFW 2019); it therefore is considered sensitive. It includes Fremont cottonwood (*Populus fremontii*) as the dominant or co-dominant species in the tree canopy and has a continuous to open canopy less than 25 meters (82 feet) in height with a variable herbaceous ground layer. Throughout California, the Fremont cottonwood forest alliance occurs on floodplains, along low-gradient rivers, along perennial or seasonally intermittent streams, at springs, in lower canyons in desert mountains, in alluvial fans, and in valleys (CNPS 2021b). Fremont cottonwood forest alliance within the survey area consists of Fremont cottonwood as a co-dominant species with red willow (*Salix laevigata*) and arroyo willow (*Salix lasiolepis*). It occupies areas adjacent to the eastern edge of the Proposed Action site and approximately 0.04 acres within the proposed expansion area.

Agriculture. Agriculture is an anthropogenic land cover that is not included in MCV2 or NCL and does not have a global or state rarity ranking. It typically refers to cultivated croplands, but within the survey area refers to a land cover that is subject to regular tilling, but has not recently been under cultivation. Agriculture occupies approximately 7.54 acres within the Proposed Action site, in the proposed expansion area.

Disturbed Habitat. Disturbed areas constitute an anthropogenic land cover that displays evidence of physical disturbance. Within the Proposed Action area, these include regularly maintained areas along the fence line of the existing WWTF and a dirt road along the western edge of the survey area.

Disturbed habitat occurs over 0.82 acres within the Proposed Action site in the proposed expansion area.

Ornamental. Ornamental is an anthropogenic land cover that is not described in MCV2 or NCL and does not have a global or state rarity ranking. It includes areas of planted vegetation or landscaping. The ornamental land cover within the survey area refers to an area within the southwest corner supporting planted tree of heaven (*Ailanthus altissima*), with an understory of maintained non-native grasses. The ornamental land cover occurs within approximately 0.03 acres within the site boundary.

Developed. Developed is an anthropogenic land cover that is not described in MCV2 or NCL and does not have a global or state rarity ranking. On the Proposed Action site, these are areas occupied by structures and paved or bare graded areas within the WWTF. The entire WWTF is considered developed for purposes of this analysis, although it includes the treatment ponds, which support areas of open water. The developed land cover occupies 9.50 acres within the WWTF.

Migratory Corridors

The existing WWTF is enclosed within an existing fence that is relatively impermeable to medium-size and larger wildlife, although some smaller, resident species are likely to be able to move through the fence. Larger wildlife species likely use the adjacent Salinas River for movement through the vicinity of the community of San Miguel. Some wildlife using the river as a movement corridor or to meet other habitat needs likely also use undeveloped

areas on either side of the river, such as the agricultural and limited grassland habitat in the proposed expansion area. However, because this area is bordered by continuous development on the south and west sides, with scattered development to the north, it is likely not important for movement by larger and more mobile species such as those moving along the Salinas River.

Plants

The literature review identified five non-listed special-status species considered potentially occurring on the Proposed Action site based on the San Miguel Community Plan (County of San Luis Obispo 2016b):

- Dwarf calycadenia (*Calycadenia villosa*)
- Kellogg's horkelia (*Horkelia cuneata* var. *sericea*)
- Pale-yellow layia (*Layia heterotricha*)
- Round-leaved filaree (*California macrophylla*)
- Santa Cruz Mountain pussypaws (*Calyptridium parryi* var. *hesseae*)

The CNDDDB and CNPS queries identified an additional 25 species recorded in the region. Habitat requirements and potential occurrence of these species are discussed in detail in the botanical survey report in Appendix D.

No special-status plant species were identified during the special-status plant species survey. A total of 30 plant species were identified within the rare plant survey area (Appendix D). Of these, 12 species (40%) are native to the region and 18 (60%) are non-native. As noted above, most of the survey area had been disked in the recent past. However, several areas around the survey area fringes were not disked, either because they occurred along the fences (on the eastern and southern edges) or in steeper terrain (including a dirt berm in the southwestern corner and a low slope at the western edge). Many of the identified plant species occurred in these areas. However, many of them also occurred scattered throughout the tilled area. And much of the plant litter left from disking consisted of dead non-native, annual grasses, such as oats (*Avena* spp.) and bromes (*Bromus* spp.). In addition, because of regular site disturbance from tilling and from several established tracks, the site is poor habitat for special-status plant species and for native species in general. Most vegetation found along the proposed water pipeline consisted of ornamental non-native trees and shrubs with sparse non-native weeds on the road shoulders. Native trees, shrubs, and perennial plants are planted and maintained within the San Miguel community park boundary.

Wildlife Species

Relatively few common wildlife species, and specifically those that are tolerant of human presence and development, are expected to occur within WWTF or the expansion area, or within the water pipeline route, as these areas support mostly developed and disturbed areas. Several California ground squirrel (*Otospermophilus beecheyi*) burrows were observed within the untilled portions of the expansion area, and other common small mammal species also likely occur here. Some larger and medium-sized mammals, such as raccoons (*Procyon lotor*), striped skunks (*Mephitis mephitis*), Virginia opossums (*Didelphus virginiana*), coyotes (*Canis latrans*), and mule deer (*Odocoileus hemionus*), may occasionally occupy these areas, either while passing through or foraging on the site, but are not expected to be permanent residents. They may also cross over some of the roads and road shoulders within the pipeline route, while moving between suitable habitats. A relatively low diversity of disturbance tolerant birds also likely occur in the Action Area, although a greater variety, including some sensitive species, are

likely to occur adjacent to the WWTF and the expansion area, within the riparian vegetation associated with the Salinas River. Common species likely include a variety of native species whose nests are protected under the MBTA, such as song sparrow (*Melospiza melodia*), California towhee (*Melospiza crissalis*), wrenit (*Chamaea fasciata*), bushtit (*Psaltirparus minimus*), California scrub-jay (*Aphelocoma californica*), and downy woodpecker (*Dryobates pubescens*). Non-listed special-status species that may occur within the riparian vegetation include yellow warbler (*Setophaga petechia*) and yellow-breasted chat (*Icteria virens*). A limited variety of reptiles is assumed to occur within the WWTF, the expansion area, or the pipeline route, such as western fence lizard (*Sceloporus occidentalis*), common side-blotched lizard (*Uta stansburiana*), and gopher snake (*Pituophis catenifer*). Among amphibians, the Sierran treefrog (*Pseudacris sierra*) and western toad (*Anaxyrus boreas*) are the mostly likely species to occur, but are expected to be mostly associated with the riparian vegetation along the Salinas River.

3.7.1.2 Environmental Consequences

Proposed Action

Habitats and Vegetative Communities

The existing WWTF consists of developed areas, including open water areas managed during the treatment process. The expansion area adjacent to the existing WWTF includes agriculture, disturbed habitats, and non-native grassland. Sensitive riparian vegetation occurs adjacent to the proposed expansion area and the existing WWTF, but no direct effects would occur to this area. Any development within the proposed expansion area, including from the optional solar component, would occur outside riparian vegetation associated with the Salinas River, and would allow for implementation of the Salinas River Trail, in accordance with the San Miguel Community Plan. Because of this, no effects would occur to sensitive riparian vegetation from implementation of the Proposed Action within the existing WWTF or the proposed expansion area. All work along the proposed water pipeline where it crosses the Salinas River would be conducted from above deck, and no effects would occur within the Salinas River or associated riparian vegetation. All other work along the proposed water pipeline would occur within the road rights-of-way, where no sensitive vegetation communities occur. MM BIO-1, which would require periodic biological monitoring; MM BIO-2, which would require that a worker environmental awareness program be prepared and present to workers; and MM BIO-3, which includes additional construction measures, would further ensure that no effects occur to riparian vegetation. Therefore, with the incorporated mitigation, the Proposed Action would not adversely affect riparian vegetation or any other native vegetation community.

The San Miguel Community Plan includes provisions for avoiding effects to tree species protected by the County (County of San Luis Obispo 2016b). No direct effects are expected to any tree species other than several smaller ornamental trees within and adjacent to the WWTF. The Proposed Action would result in no effects to trees within the Salinas River riparian habitat either adjacent to the Proposed Action site or along the proposed water pipeline. Dudek observed several oak trees near the northwestern portion of the pipeline alignment but the Proposed Action is not expected to result in effects to these trees.

Wildlife

The Proposed Action would occur entirely within upland land covers and would not affect the movement of any fish species. Also, as noted above, the existing WWTF is entirely fenced and does not currently support movement of wildlife species, except potentially for some smaller, resident species. The proposed expansion area is bordered by

movement barriers on the south and west and provides relatively poor habitat (mostly human-made land covers) for most species. The WWTF upgrade and expansion also would not substantially constrict use of the Salinas River as a movement corridor by larger and medium-sized species, because it would result in no new development that would result in a narrower movement corridor than already permitted by the existing plant. The proposed water pipeline would be installed entirely below ground. Construction activities along the proposed water pipeline may affect wildlife movement, such as within the three ephemeral streams along River Road, but these effects would be temporary. Therefore, the Proposed Action is not likely to adversely affect wildlife movement.

Significant wildlife nurseries may exist within the Salinas River. Aquatic habitats within the river are far from Proposed Action activities, which are unlikely to affect use of these habitats by aquatic organisms, such as fish and amphibians. However, the Proposed Action may result in take of nesting migratory birds within the riparian vegetation adjacent to the Proposed Action site, as well as to native bird species nesting in other habitat within or near the Proposed Action site. Destruction of bird nests, eggs, or nestlings from construction activities, as well as indirect impacts effects to birds nesting in the riparian and other habitats adjacent to the Proposed Action site and the proposed water pipeline, causing failure of bird nesting, would be considered “take” under MBTA. However, implementation of MM BIO-4 would require pre-construction nesting bird surveys for all Proposed Action components, should Proposed Action activities be initiated in the nesting bird season (approximately February 1 to September 15). MM BIO-4 would also require implementation of avoidance measures if any nests are found during the survey. In addition, biological monitoring under MM BIO-1, worker education under MM BIO-2, and additional construction measures implemented under MM BIO-3, would further ensure avoidance of take of native nesting birds. Therefore, with implementation of these measures, the Proposed Action is not likely to adversely affect native nesting birds.

No Action Alternative

Under the No Action Alternative, the proposed expansion of the Machado Wastewater Treatment Plant or the optional solar component would not occur. As a result, no adverse impacts to fish, wildlife and vegetation resources would occur as a result of this alternative.

3.7.1.3 Mitigation

Implementation of MM-BIO-1 - Biological Monitoring, MM-BIO-2 – Worker Environmental Awareness Program, MM-BIO-3 – Additional Construction Measures, and MM BIO-4 - Pre-Construction Nesting Bird Survey and Nest Avoidance are required for the Proposed Action.

3.7.2 Listed, Threatened and Endangered Species

This section discusses potential impacts to listed, threatened, and endangered species resulting from the implementation of the Proposed Action. The analysis below is based upon a literature review performed by Dudek biologists in 2021 in order to identify the potential for sensitive species that are known to occur or may potentially occur in the vicinity of the Proposed Action site. The literature reviewed includes CNDDB, CNPS Inventory of Rare and Endangered Plants, and the USFWS IPaC query, relevant to the Proposed Action site.

3.7.2.1 Affected Environment

Regulatory Setting

The regulatory setting for this section is similarly described by the Endangered Species Act and Native Plant Protection Act, as outlined previously in section 3.5.1.

Environmental Setting

A description of vegetation and wildlife occurring on the Proposed Action site was assessed by Dudek through two biological surveys conducted in June 2020. Results of the surveys are described in Section 3.5.1 above.

Listed Plant Species

The IPaC (USFWS 2022) query identified four federally listed plant species as occurring in the region: California jewelflower (*Caulanthus californicus*), marsh sandwort (*Arenaria paludicola*), purple amole (*Chlorogalum purpureum*), and spreading navarretia (*Navarretia fossalis*). However, the CNDDDB (CDFW 2022) and CNPS (2022) queries identified only one of these species, the federally threatened purple amole, as occurring within 10 miles of the Action Area. This species has been recorded on nearby Camp Roberts, less than 4 miles northwest of the Action Area. However, this species was not observed during rare plant surveys (Appendix D), and only a very limited area of marginal habitat occurs within grassland in the expansion area. In addition, the 30 plant species identified during the special-status plant surveys were all common species. No listed plant species were identified during the special-status plant species survey (Appendix D), and no listed plant species potentially occur within WWTF or the pipeline route. Although some marginally suitable grassland habitat for purple amole occurs in the expansion area, the likelihood of this perennial species becoming established in this limited area of marginal habitat is low. A total of 30 common plant species, 12 of which were native, were identified within the rare plant survey area (Appendix D).

Listed Wildlife Species

Several listed wildlife species have some potential to occur near the WWTF, including the south-central California coast distinct population segment (DPS) of steelhead (*Oncorhynchus mykiss*), California condor (*Gymnogyps californianus*), least Bell's vireo (*Vireo bellii pusillus*), and San Joaquin kit fox (*Vulpes macrotis mutica*). Dudek completed a Biological Assessment for the proposed project in April 2022, which assessed the impacts of the Proposed Action on Listed Threatened, and Endangered Species (Appendix E)

South-Central California Coast Steelhead (threatened). The reach of the Salinas River adjacent to the WWTF is considered critical habitat for the south-central California coast DPS. Several tributaries to the Upper Salinas River, both upstream and downstream of the Action Area, were considered part of the historical range of spawning steelhead (NMFS 2013). As of the time of the preparation of the recovery plan for the south-central California coast DPS (NMFS 2013), no known barriers to passage existed along the Salinas River south to the Atascadero Area, upstream of the Action Area. Downstream of the Action Area, dams on the Nacimiento and San Antonio rivers limited steelhead access to these streams. Additional barriers occurred upstream of Atascadero, both on the mainstem of the Salinas River and along several tributaries, limiting access to upstream spawning areas. Based on snorkel surveys in 2003, steelhead still occurred in several tributaries upstream of the Action Area: Paso Robles Creek,

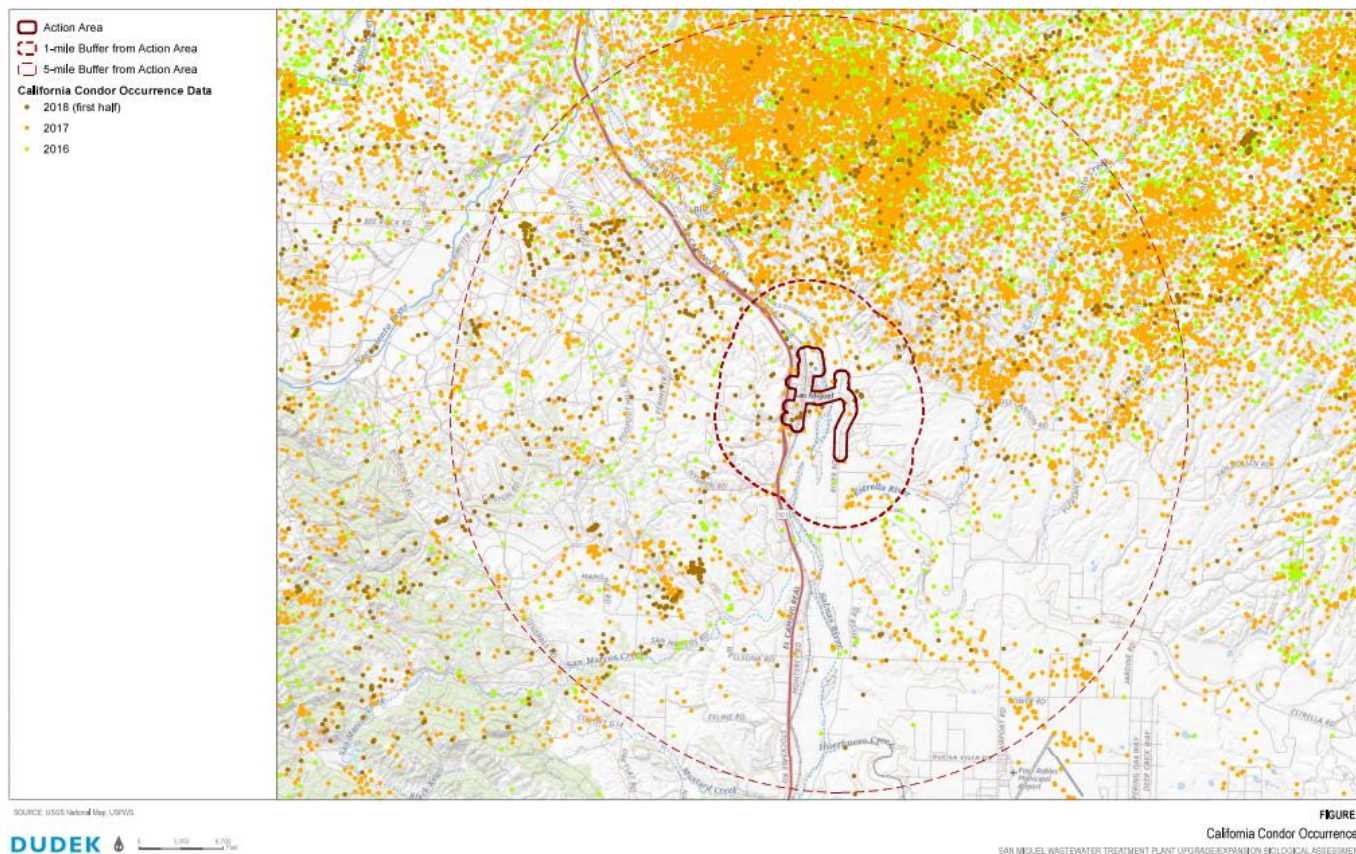
Atascadero Creek, and Santa Margarita Creek (Boughton et al. 2006). Steelhead accessing these creeks would have used critical habitat within the Action Area vicinity to reach the spawning grounds. Therefore, steelhead are presumed to occur regularly within the Action Area, while moving to and from spawning grounds upstream.

California Condor (endangered). California condors were first released in central coastal California in 1997, and the first individuals were released at Pinnacles National Monument (now Pinnacles National Park) in 2002 (USFWS 2013). The Central California population is 81 individuals as of October 2021 (VWS 2021). This population includes individuals principally occupying the Gabilan Range north northwest of the Action Area and on the east side of the Salinas Valley, in Monterey and San Benito counties, and the Santa Lucia Range of Monterey and San Luis Obispo counties, west of the Action Area. Occurrences are concentrated in the vicinity of Pinnacles National Park, more than 30 miles north of the Action, and along the coast of Monterey County, more than 30 miles to the west and northwest (USGS 2021).

USGS data for 2016 to 2018 show that occurrences in the region are concentrated in the Diablo Range to the north and northwest of the Action Area and to a lesser extent in the Santa Lucia Range to the east (USGS 2021; Figure 5 California Condor Occurrences). The data include several occurrences over the Action Area during this period, including one of an individual flying over the WWTF in 2018. In general, occurrences along the Salinas River Valley, outside adjacent mountain ranges, appear to involve occasional flyovers of birds traveling between more suitable habitats in the mountains. These individuals likely fly mostly high above the Action Area, although it is possible individuals occasionally land on the valley floor when suitable carrion is present. But because the Action Area occurs on mostly level terrain in the center of the valley, it is not considered good habitat for the species. Portions of the Action Area, especially east of the Salinas River, may support some suitable carrion resources, such as mule deer (*Odocoileus hemionus*). No condors were recorded passing over the Action Area in 2016 or early 2017, although on two occasions a radio-tracked condor flew near the Action Area. A total of 6 condors passed over the Action Area from the beginning of May 2017 through March 2018, including two condors that flew over the Action Area together on March 27, 2018 (Figure 5). USGS (2021) data indicate that, during this period, several condors may have landed in the Action Area or vicinity, but many of the data points indicating “stationary” condors suggest the individuals involved were actually moving through the area. One condor, #716, apparently perched

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Figure 5 California Condor Occurrences



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approximately 600 feet north of the Action Area, likely within the Salinas River, on the afternoon of October 7, 2017, before moving north and roosting overnight approximately 0.6 miles north of the Action Area, based on the logging of numerous points in close proximity during these periods. The same individual had visited other locations farther north along the river on October 5, 2017. Condors appear to land somewhat more regularly within 2 miles of the Action Area, in more suitable terrain to the north and east.

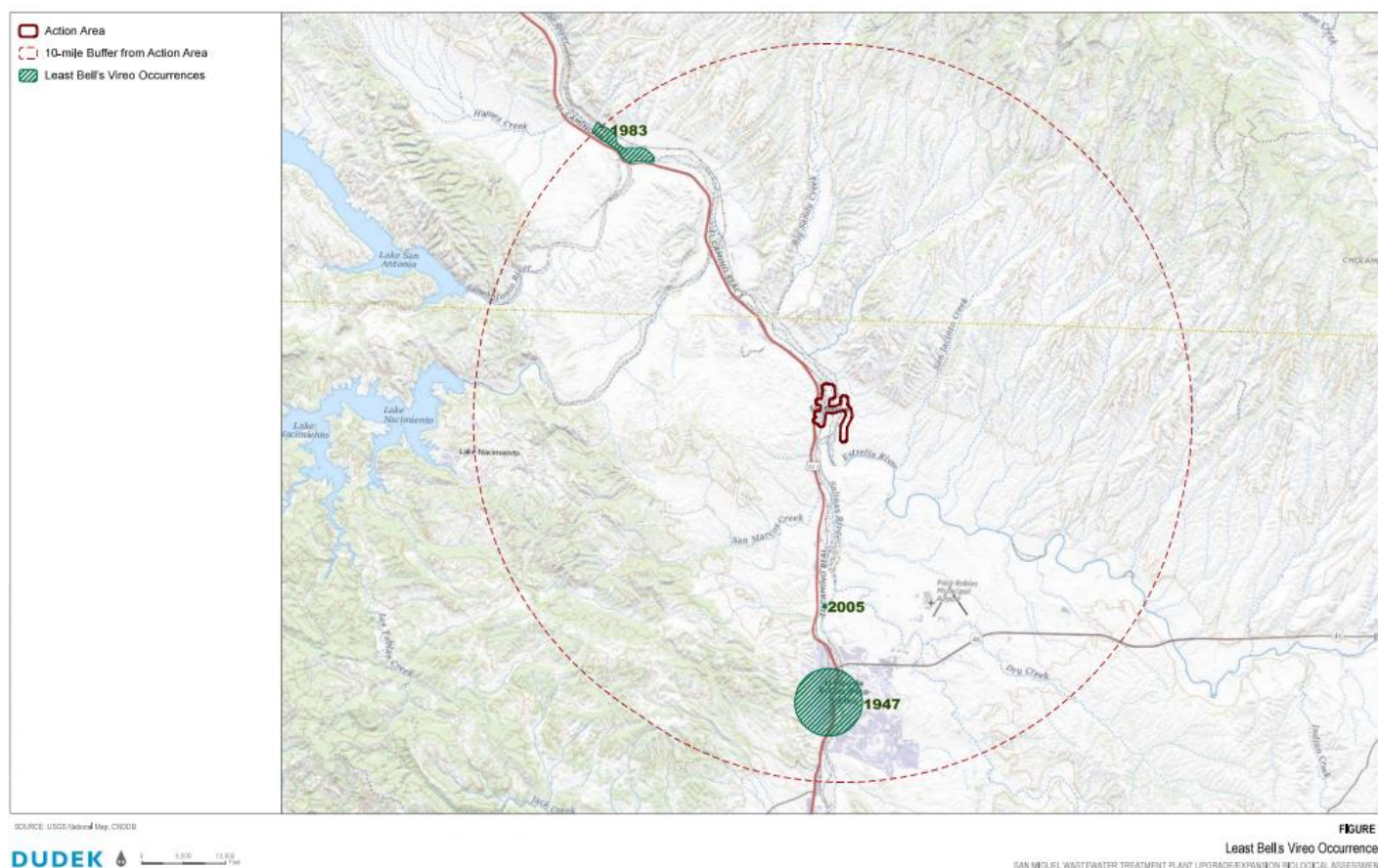
Least Bell's vireo (endangered). At the time of preparation of the Recovery Plan for least Bell's vireo (USFWS 1998), the project region, including the entire Salinas Valley and all of San Luis Obispo and Monterey counties east of the valley, were considered part of the historic range of the species. The current range was thought to extend northward only through Santa Barbara County, and into the southern edge of San Luis Obispo County, in the Cuyama Valley (USFWS 1998). Historic CNDDDB occurrences from the Salinas River are all from Monterey County and a minimum of 7.0 miles from the Action Area. The nearest was an occurrence where several egg sets were collected along the river 7.0 miles south of the Action Area, between 1924 and 1947. Another occurrence, approximately 8.0 miles north of the Action Area, was of 3 males and a female present in 1983, although no vireos were found here in 1985 (CDFW 2021a). The only other historic reports were of two from more than 20 miles north, prior to 1920. Survey efforts following this most recent sighting included a survey of habitat on Fort Hunter-Liggett and of the Nacimiento and Salinas Rivers where these streams occur within Camp Roberts, in 1987, and which resulted in no vireo detections (Greaves 1988). Despite the recent lack of occurrences, the Recovery Plan included Delisting Criteria 2 for least Bell's vireo, that "Stable or increasing least Bell's vireo populations, each consisting of several hundred or more breeding pairs, have become established or are protected at . . . the Salinas River, a San Joaquin River metapopulation, and a Sacramento River metapopulation" (USFWS 1998).

As the population of least Bell's vireo expanded rapidly in the late 1990s and 2000s, this species occurred in parts of its old range where it had not been recorded for many years. Although CNDDDB includes no new occurrences in the Monterey County portion of the Salinas River, or any other location north of the Action Area, it includes one occurrence from 2005 involving a single pair in early July that was absent during surveys on July 12 and 30, 2005 (CDFW 2021a) (Figure 6, Least Bell's Vireo Occurrences). The 5-year review prepared in 2006 noted that "A few incidental sightings after the breeding season" had been recorded in the previous five years, but added that "territorial and reproductive status" had not been established for these individuals (USFWS 2006). USFWS added that Delisting Criteria 2 had not been met, and it added that, given "current knowledge of vireo population increases within its present range and in consideration of a population viability analysis (PVA), this Delisting Criterion may need to be revised." Data available for years since 2006 include no new occurrences for least Bell's vireo along the Salinas River (e.g., Preston et al. 2021). Available literature includes no documented records for least Bell's vireo within the Action Area. However, riparian habitat associated with the Salinas River where it occurs within 500 feet of proposed project activities may be suitable for this species.

San Joaquin Kit Fox (threatened). The range of San Joaquin kit fox was not well known at the time of its listing in 1967, and it was only with the first, preliminary study of the species' distribution by the California Department of Fish and Game (CDFG) in 1970 that agencies recognized its presence in the Salinas Valley, including its historic presence in the valley as far north as San Benito and Santa Clara counties (Laughrin 1970). At that time, the species was still regarded as occurring occasionally in the Cholame-Shandon region of San Luis Obispo County, and the CDFG range map showed the species still occurring well north in the Salinas Valley, in Monterey and San Benito counties. CNDDDB (CDFW 2021a) includes numerous occurrences from the Action Area vicinity, in both San Luis Obispo County

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Figure 6 Least Bell's Vireo Occurrences



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and Monterey County, particularly at Camp Roberts, east and northeast of the Action Area. Most of the 51 occurrences in this area are from the 1990s and early 2000s, and many are from within 5.0 miles of the Action Area, with one from 1996 slightly more than 1.0 mile to the northeast. While these occurrences are clustered east and northeast of the Action Area, at least one was to the south, approximately 1.8 miles south of San Miguel and the southern end of the Action Area, where a kit fox carcass was collected in 1990 (CDFW 2021a).

Despite the regular occurrence of the species in the San Miguel area into the 2000s, no kit foxes have been observed in this area since 2006, despite surveys conducted at Camp Roberts at least through 2017 (CDFW 2021a) (Figure 7, San Joaquin Kit Fox Occurrences). Moonjian (2007), based on extensive spotlighting surveys in northeastern and north-central San Luis Obispo County, determined that San Joaquin kit fox may be extirpated or below detection levels west of Shandon. USFWS has stated that, despite the presence of San Joaquin kit fox habitat in the Salinas Valley, no current documented evidence suggests the species occurs there, and “the species no longer occurs at Fort Hunter-Liggett [north of Camp Roberts] or Camp Roberts” (USFWS 2020). Farther to the southeast, San Joaquin kit fox has been recorded more recently (since 2007) on several occasions, between approximately 12 and 20 miles from the Action Area (Figure 7). The nearest more recent CNDDDB occurrence is from about 12 miles southeast of the Action Area, near Whitley Gardens, where DNA analysis confirmed San Joaquin kit fox scat in 2014 (CDFW 2021a). CNDDDB includes four other occurrences east of Whitley Gardens to the Shandon area between 2012 and 2014 (CDFW 2021a), so the species likely persists in that area.

Within the Action Area, a habitat evaluation of the proposed expansion area in June 2020 (Appendix F) found no evidence of San Joaquin kit fox presence, including no burrows or sign consistent with kit fox or any other fox species (Dudek 2020). The only burrows observed were three California ground squirrel (*Otospermophilus beecheyi*) burrows in the limited, untilled portions of the expansion area, which comprises only approximately 0.91 acres out of the 18.8 acres occupied by the existing WWTF and the proposed expansion area. Although the species has been recorded numerous times in the past in the Action Area vicinity, CNDDDB includes no occurrences within the Action Area itself or within the community of San Miguel (CDFW 2021a).

3.7.2.2 Environmental Consequences

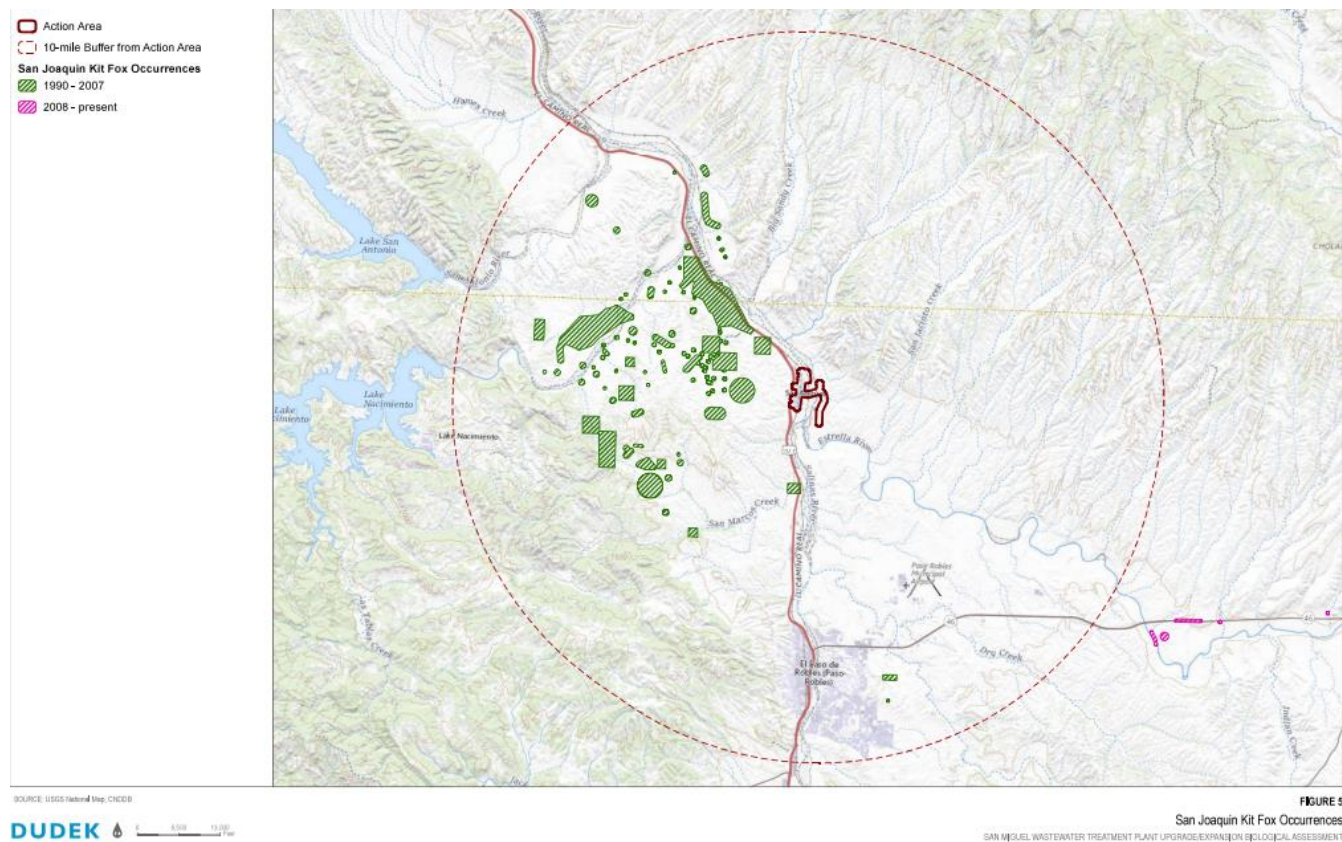
Proposed Action

Listed Plant Species

The proposed pipeline would occur entirely in previously disturbed areas along existing roads, and these areas do not have potential to support special-status plants. The locations of impacts outside the existing WWTF for creation of new treatment processing pads and all-weather access roads are within previously disturbed or regularly tilled areas and would result in no impacts to listed plants. However, the optional solar component could result in effects to marginally suitable habitat for purple amole, depending on the location of any future impacts from its installation. Implementation of MM BIO-5, however, would ensure that no take of purple amole would result. Therefore, with implementation of this measure, the Proposed Action would result not result in adverse effects to purple amole or any other listed plant species.

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Figure 7 San Joaquin Kit Fox Occurrences



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Listed Wildlife Species

South-Central California Coast Steelhead

Because direct effects would be limited to areas of existing development, fallow agriculture, and a small area of non-native grassland, the proposed action would not result in loss of aquatic habitats associated with the Salinas River that are suitable for steelhead of the south-central California coast DPS, and therefore would also not result in loss of steelhead critical habitat within the Action Area. Because no direct effects would occur within aquatic habitats, no direct loss of or harm to individual steelhead of the south-central California coast DPS would occur. In addition, the proposed action would include BMPs implemented under the SWPPP that would result in avoidance of water quality effects from stormwater discharge and erosion. Biological monitoring (MM BIO-1), implementation of a WEAP (MM BIO-2), and additional construction measures (such as prohibiting vehicle maintenance/fueling/staging within 100 feet of any riparian habitat; MM BIO-3) would further ensure avoidance of these indirect effects. Long-term water quality effects would be avoided due to implementation of permanent erosion control measures in remaining disturbed areas at the completion of construction. Finally, as the WWTF does not discharge effluent into the Salinas River and the proposed action would not result in changes to groundwater infiltration from the percolation ponds, no long-term direct hydrological effects would occur from the proposed action. With the implementation of BMPs to avoid water quality impacts, the Proposed Action would result in no effects to steelhead. The above-described mitigation measures would further ensure that no effect would occur.

California Condor

Occurrences of California condor within and near the Action Area are believed to involve mostly individuals flying high above the Salinas Valley, in transit between more suitable habitats, such as occur in the Diablo Range to the north and east. In addition, the loss of natural communities from project implementation would be limited to removal of a small area of non-native grassland in the proposed expansion area. This area and the disked field that would potentially be removed within the expansion area, as noted above, are poor habitat for the species. Therefore, because of the low potential for this species to land in the Action Area, the large amount of available, more suitable habitat elsewhere in the region, and the poor quality and small amount of the habitat that would be removed, the proposed action would not result in adverse effects to California condor from habitat loss.

Because of the species' mobility, because it is not expected to nest within the Action Area, and because it typically flies over at high altitudes, it is highly unlikely that any California condors would be killed or injured by equipment during construction. However, the chance of this species occurring on-site during construction, leading to loss of individuals, is not so unlikely as to be considered discountable. Construction debris, litter, leaking equipment, or roadkill could attract condors to the Action Area during construction. Condors are curious birds and have been documented in close association with oil pumps and human activity in the Los Padres National Forest. During cleanup activities at trash sites, condors have been observed sitting on guard rails adjacent to the cleanup activities. In particular, condors attracted to the construction site could consume microtrash (including small bits of plastic, bottle caps, pop-tops, PVC pipe fragments, and broken glass). California condors have been known to inadvertently feed such items to hatchlings, sometimes resulting in death of young (USFWS 2013). Condor attraction to the construction site could result in individuals being struck by construction vehicles. However, with implementation of the avoidance and minimization measures described in Section 5.0, these potential affects would be avoided. Daily disposal of trash items, and their weekly removal from the site, as required under the San Joaquin Kit Fox Protection Measures during Construction (MM BIO-8), would remove an important attractant

to construction sites and result in avoidance of effects from microtrash. Imposition of speed limits, as part of the San Joaquin kit fox measures, would ensure that California condors are not subject to vehicle collisions due to the Proposed Action. Biological monitoring (MM BIO-1) and implementation of a WEAP (MM BIO-2) would further ensure avoidance of effects to California condor. Therefore, with implementation of these measures, the Proposed Action would not adversely affect California condor.

Least Bell's Vireo

The Least Bell's vireo is a federally listed endangered bird species that has a low potential to occur in riparian vegetation adjacent to the Proposed Action site. The Proposed Action would not result in loss of least Bell's vireo habitat. However, if this species occurs within riparian vegetation associated with the Salinas River when construction is initiated, construction of any of the Proposed Action components could result in disturbance of nesting activities and nest failure. Although least Bell's vireo has only a low potential to nest along the Salinas River adjacent to Proposed Action activities, establishment of the species' absence would be necessary to ensure no take occurs. Implementing mitigation measures, such as a survey for Least Bell's vireo prior to initiation of construction activities, and consultation with the U.S. Fish and Wildlife service and CDFW if any nesting or territorial Least Bell's vireos are detected (MM BIO-6), would result in avoidance of disturbance to least Bell's vireo. Therefore, with implementation of this measure, the Proposed Action would not adversely affect least Bell's vireo.

San Joaquin Kit Fox

Potential effects to San Joaquin kit foxes could include loss of habitat and direct and indirect effects to kit foxes that may be present in the proposed expansion area at the time of construction. Indirect effects to denning kit foxes could occur adjacent to the existing WWTF, or within the expansion area, if foxes are occupying dens in these areas at the time construction is initiated. Removal of San Joaquin kit fox habitat and disturbances near kit fox dens could adversely affect San Joaquin kit foxes. Under the San Miguel Community Plan (County of San Luis Obispo 2016b), removal of suitable San Joaquin kit fox habitat requires mitigation at a ratio of up to 4:1, depending on the habitat being removed. In addition, the Community Plan includes a map of the Plan area coded by mitigation ratio, from 0:0 for developed-urban areas up to 4:1 for high-quality habitat (Figure 4-F in County of San Luis Obispo 2016). Although the existing WWTF is designated as an area requiring no mitigation (0:0), the expansion area north of the existing WWTF and the narrow undeveloped strip between the WWTF and the UPRR are in an area where impacts require habitat mitigation at a 4:1 ratio.

Dudek completed an assessment of San Joaquin kit fox habitat in the expansion area (Appendix F), based on San Luis Obispo County San Joaquin Kit Fox Habitat Evaluation Form. The form includes a series of questions and ratings related to habitat value of a site; final determination of the mitigation ratio is based on a total score based on responses to the questions. The form must be filled out for any Proposed Action within 10 miles of a San Joaquin kit fox occurrence. As the proposed expansion area occurs in an area where the species has at least a low potential to occur and the Proposed Action site is within 10 miles of multiple San Joaquin kit fox occurrences (Appendix F), development of lands within the proposed expansion area would adversely affect San Joaquin kit fox due to loss of habitat, and would require compensatory habitat mitigation. Although the Figure 4-F designates the expansion area as high-quality habitat, for which a 4:1 mitigation ratio would apply, Dudek's assessment assigned the site a score of 48 out of 100. The score is relatively low because the Proposed Action would not block an existing corridor because the area proposed for development is small (much less than 40 acres), the site is not immediately adjacent to suitable San Joaquin kit fox habitat, and kit foxes have not been observed within 3 miles of the site within the

past 10 years. Also, although the score on the form reflects that suitable habitat occurs on the site, only 0.9 acres out of 18.8 of the expansion area are suitable for denning. Dudek concluded, “Due to the absence of habitat suitable for occupancy by San Joaquin kit fox, the lack of San Joaquin kit fox sign on the project site, and potential constraints to movement to the north, south, and west from development, vineyards, and U.S. Highway 101, and based on the score as determined on the Kit Fox Evaluation Form,” mitigation at a ratio of 2:1 would be appropriate compensation for the loss of suitable San Joaquin kit fox habitat. Additional details of the assessment are included in Appendix F. MM BIO-7 requires that, prior to initiation of Proposed Action activities within the proposed expansion area, including for the optional solar component, the District must coordinate with the County to determine a suitable mitigation ratio for habitat removed.

In addition to habitat impacts to San Joaquin kit foxes, the Proposed Action could result in direct and indirect take of individuals. Any construction in suitable habitat in the proposed expansion area, including for the optional solar component, could result in destruction of an active kit fox den, including a natal den, and potentially mortality to kit foxes, if they are present at the time of construction. If any kit fox dens are established adjacent to the WWTF, the proposed expansion area including the optional solar component, and the proposed water pipeline alignment at the time of construction, indirect effects due to noise from construction, dust, and increased human presence could result in abandonment of a den. In addition, construction could provide additional dangers to kit foxes, such as attracting them to the construction site because of the presence of food items, dangerous interactions with pets, entrapment in trenches and uncovered pipes, and other dangers. MM BIO-8, by requiring a pre-construction San Joaquin kit fox survey, avoidance of San Joaquin kit fox dens, and implementation of standard avoidance and minimization measures, would result in avoidance of direct and indirect impacts to San Joaquin kit fox individuals. With implementation of MM BIO-7 and MM BIO-8, loss of San Joaquin kit fox habitat and take of individual kit foxes would be avoided. Avoidance would be further ensured through implementation of MM BIO-1, which would require periodic biological monitoring of Proposed Action activities; MM BIO-2, which would require that a worker environmental awareness program be prepared and present to workers; and MM BIO-3, which requires additional construction measures, would further ensure no impact occurs. With implementation of the proposed measures, the Proposed Action would not adversely affect San Joaquin kit fox.

No Action Alternative

Under the No Action Alternative, the proposed expansion of the Machado Wastewater Treatment Plant would not occur. Therefore, no adverse impacts listed Threatened or Endangered Species would occur as a result of this alternative.

3.7.2.3 Mitigation

Implementation of MM-BIO-1 - Biological Monitoring, MM-BIO-2 – Worker Environmental Awareness Program, MM-BIO-3 – Additional Construction Measures, MM BIO-4 - Pre-Construction Nesting Bird Survey and Nest Avoidance, MM BIO-5 - Updated Special-Status Plant Surveys, MM BIO-6 - Least Bell’s Vireo Protocol Surveys, MM BIO-7 - San Joaquin Kit Fox Compensatory Habitat Mitigation, and MM BIO-8 - Pre-Construction San Joaquin Kit Fox Survey and Kit Fox Avoidance are required for the Proposed Action.

3.7.3 Invasive Species

This section discusses potential impacts caused invasive species or noxious weeds resulting from the implementation of the Proposed Action. The analysis below is based upon a literature review performed by Dudek

biologists in 2021 in order to identify the potential invasive species that are known to occur or may potentially occur in the vicinity of the Proposed Action site. The literature reviewed includes CNDDDB, CNPS *Inventory of Rare and Endangered Plants*, and U.S. Department of Agriculture soil survey reports relevant to the Proposed Action site.

3.7.3.1 Affected Environment

Regulatory Setting

Federal

EO 13112

On February 3, 1999, President William J. Clinton signed EO 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.”

State

California Invasive Plant Council

The California Invasive Plant Council (Cal-IPC) was formed in 1992 to protect California’s environment and economy from invasive species. Cal-IPC maintains the California Invasive Plant Inventory, which is a comprehensive list of invasive plants based on ecological impacts, as well as “Watch” plants that may become invasive in the future. Each plant is assessed using a transparent criteria system with documentation of sources. The Plant Profile page for each plant links the information on the plant’s biology and management. The Cal-IPC Invasive Plant Inventory list should be used to define the invasive species that must be considered as part of the NEPA analysis for a project.

Environmental Setting

A description of vegetation and wildlife occurring on the Proposed Action site was assessed by Dudek through two biological surveys conducted in June 2020. Results of the surveys are described in Section 3.5.1 above. The Proposed Action site is relatively flat land that supports several vegetation communities. The existing WWTF consists of developed areas, and the expansion area adjacent to the existing WWTF includes agriculture, disturbed habitats, and non-native grassland. The water pipelines would be installed completely within developed or previously disturbed lands supporting no native vegetation communities. Sensitive riparian vegetation occurs adjacent to the proposed expansion area and the existing WWTF, but no development is proposed in this area.

3.7.3.2 Environmental Consequences

Proposed Action

Short-Term (Construction)

The Proposed Action's construction activities would include site preparation, grading, and facilities construction. These construction activities would occur within development associated with the existing WWTF, within mostly regularly tilled agricultural lands in the expansion area, and in developed and disturbed lands along the water pipeline. Only a small area of non-native grassland (up to 0.9 acres) would potentially be disturbed, within the expansion area. Because no native vegetation communities would be disturbed or removed, the Proposed Action would not result in short-term adverse effects from invasive plant species.

Long-Term (Operations)

Following the Proposed Action's construction, fewer areas of exposed soil would be present within the Proposed Action limits. In addition, the area occupied by non-native species would be reduced through the removal of up to 0.9 acres of non-native grassland. Establishment of invasive species within the WWTF and the expansion area is unlikely because these areas will be developed or maintained. The water pipeline will occur within existing rights of way, largely along existing roads, where invasive species are also unlikely to become established. Therefore, the Proposed Action would not result in long-term adverse effects from invasive plant species.

No Action Alternative

Under the no-action alternative, the proposed expansion of the Machado Wastewater Treatment Plant and the optional solar facility, as well as development of the water pipeline, would not occur and the Proposed Action site and would remain unchanged as no development activity would occur. As a result, this alternative would not contribute to the spread of invasive species.

3.7.3.3 Mitigation

No formal mitigation measures would be required for the Proposed Action.

3.8 Water Resources

This section discusses potential impacts to water resources resulting from the implementation of the Proposed Action. The analysis is based on the review of existing resources and applicable laws regulations and guidelines.

3.8.1 Water Quantity

This section discusses potential impacts to water quantity resulting from the implementation of the Proposed Action.

3.8.1.1 Affected Environment

Regulatory Setting

Sustainable Groundwater Management Act

The intent of the California Sustainable Groundwater Management Act (SGMA; Water Code § 10720 et seq.) is to “enhance local management of groundwater consistent with rights to use or store groundwater... [and] to preserve the security of water rights in the state to the greatest extent possible consistent with the sustainable management of groundwater.” The SGMA states that “any local agency or combination of local agencies overlying a groundwater basin may elect to be a groundwater sustainability agency [GSA] for that basin” (Water Code § 10723). A GSA will be formed within each groundwater basin to prepare and implement a plan for long-term groundwater sustainability (GSP). Finally, the SGMA (i) contemplates the voluntary participation of Indian tribes in the preparation or administration of a GSP or groundwater management plan through a joint powers authority or other agreement with local agencies and basins; (ii) acknowledges the federally reserved water rights of Indian tribes for purposes of adjudicating or managing these rights and mandates that these rights be respected in full; and (iii) recognizes that federal law prevails in the adjudication or management of tribal federally reserved water rights.

The Proposed Action site is located within the Temecula Valley Groundwater Basin, which is a very low priority basin (Department of Water Resources, 2021). Only high- and medium-priority basins are required to form a groundwater sustainability agency (GSA) and adopt a groundwater sustainability plan (GSP) or submit an alternative to a GSP (DWR 2019). Since the Proposed Action site is located within a very low priority basin, formation of a GSA or adoption of a GSP is not required.

Environmental Setting

Regional Watershed

The Proposed Action area is located within the Salinas River Watershed. Contributing waters to the watershed include 14 sub-basins include the Cholame Valley, San Jacinto Creek, Indian Creek, Comack-McDonald, Shell Creek, Mid San Juan Creek, Navajo Creek, Upper San Juan Creek, San Marcos Creek, Huer Huero Creek, Peachy Canyon, Paso Robles Creek, Upper Salinas River, and San Miguel. The Salinas River corridor is characterized by fairly steep slope banks, sandy bottoms, and riparian vegetation. The river drains a large watershed, extending roughly 120 miles from its headwaters southeast of Santa Margarita to the Pacific Ocean at Elkhorn Slough in Monterey County. Just south of San Miguel, at the confluence of the Estrella River and the Salinas River, is a large and relatively undefined flood plain. The Salinas River is the primary drainage feature in San Miguel. Drainage generally sheet-flows from the higher topography on the west side of town towards the river. Newer subdivisions either retain water on-site (as is the case in Mission Heights) or connect to the River Road storm drain, which itself discharges to the Salinas River. The San Lawrence Terrace area drains to an unnamed tributary stream to the Salinas River.

Water Resources

In 2013, San Miguel’s entire water needs were met by pumping groundwater from the Paso Robles Groundwater Basin from two of three wells in the community (San Miguel Community Plan 2016). In 2010, San Miguel’s gross water use was 239 acre-feet. During that same year, the basin as a whole pumped about 96,000 acre-feet. By 2035, San Miguel’s gross water use is estimated to be about 483 acre-feet per year.

At this time, San Miguel has no supplemental surface water allocations (e.g. from a source such as the Nacimiento Water Project or State Water Project). However, in the future, the Salinas River underflow is a potential supplemental water source². The underflow is accessible through shallow wells rather than deep wells, and it is generally separated from the ground water basin. The linkage between the Salinas River underflow and the Paso Robles Groundwater Basin is not well understood. Within the greater Paso Robles Groundwater Basin, concentrated pumping has created localized pumping depressions and continued widespread declines in water levels throughout the basin.

Maintaining a sustainable water supply is a critical need for the Paso Robles region. To that end, the County of San Luis Obispo Board of Supervisors, on February 1, 2011, approved a Resource Capacity Study and certified a Level of Severity (LOS) III for the greater Paso Robles Groundwater Basin. *A Level of Severity III exists when water demand equals the available resource; the amount of consumption has reached the dependable supply of the resource.* As a result of the LOS III certification, the water resources strategy for the community of San Miguel includes the following:

- **Conservation.** Using less water through daily practices
- **Efficiency.** Using less water with the systems that deliver water
- **Supplemental source of water.** Using water other than groundwater

These are important tools to sustain the groundwater supply in the Paso Robles region. This is particularly true in San Miguel, due to its drier climate with warm summers. Water conservation and more efficient water systems and use can save up to 20% of per capita water use. Specific conservation, efficiency and supplemental water strategies should be implemented for proposed projects.

3.8.1.2 Environmental Consequences

WWTF

The WWTF portion of the Proposed Action involves the construction of new secondary and tertiary treatment facilities at the existing WWTF and on expansion property, as well as ancillary site improvements. The WWTF portion of the Proposed Action includes the addition of a membrane bioreactor, UV disinfection, headworks, lift station, and recycled water pumping station. The WWTF expansion would produce tertiary California Code of Regulations Title 22 quality recycled water for agricultural use or groundwater recharge. Therefore, water for this element of the Proposed Action would be sufficient and impacts associated with the implementation of this element would be less than significant.

Optional Solar Component

The optional solar component of the Proposed Action is not considered a large land use development Proposed Action for purposes of compliance with Government Code Section 66473.7 and California Water Code Section 10912. The proposed solar component is not likely to occupy more than 40 acres of land and is therefore not considered a Proposed Action pursuant to California Water Code Section 10912. This portion of the Proposed Action would require water for cleaning of the panels approximately 6 times per year or expanded water supply would not be required. Thus, a less-than-significant impact would occur.

Reclaimed Water System

Upon completion, the Proposed Action would permanently convert a total of 50 acre-feet per year of irrigation demand to large vineyards to the east and west of the WWTF. The proposed pipeline would involve the construction of new 8-inch HDPE water transmission and distribution pipelines to convey wastewater to large vineyards to the east and west of the WWTF. This portion of the Proposed Action would provide recycled water to the community area, which would potentially reduce the demand on available water supplies. and no impact would occur.

Groundwater

Groundwater would not be extracted in association with the Proposed Action. Implementation of the Proposed Action would provide a new source of recycled water supply for irrigation, thereby reducing pumping demands and drawdown impacts on the Paso Robles Groundwater Basin, which is impacted by decreasing water levels. As a result, the Proposed Action would be consistent with the goals of the Paso Robles Subbasin Groundwater Sustainability Plan (Montgomery Watson 2020), which was completed in accordance with the California Sustainable Groundwater Management Act.

Because the Proposed Action is consistent with the goals of the Sustainable Groundwater Management Act and the Paso Robles Subbasin Groundwater Sustainability Plan, and would continue to comply with the WDRs, the Proposed Action would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan and impacts would be less than significant.

No Action Alternative

Under the no-action alternative, the proposed expansion of the Machado Wastewater Treatment Plant and the optional solar facility would not occur and the Proposed Action site and would remain unchanged as no development activity would occur. As a result, this alternative would have no impact on water resources.

3.8.1.3 Mitigation

No mitigation is required for the Proposed Action.

3.8.2 Water Quality

This section discusses potential impacts to water quality resulting from the implementation of the Proposed Action. The analysis is based on the review of existing resources and applicable laws regulations and guidelines and the hydrologic and hydraulic analysis prepared by Monsoon Consultants in 2021 (Appendix B).

3.8.2.1 Affected Environment

Regulatory Setting

Clean Water Act

The federal Clean Water Act (CWA), 33 United States Code (USC) Section 1251(a)(2), sets forth national goals that waters shall be “fishable, swimmable” waters (CWA Section 101 [a][2]). The CWA addresses both point and

non-point sources of pollution (Sections 402 and 319, respectively), both of which are controlled through NPDES. A NPDES permit must be obtained in order to discharge pollutants into “Waters of the United States” In some states, the USEPA has delegated permitting authority to the regional water quality agency, in this case the State Water Resources Control Board (SWRCB). However, the USEPA retains authority to regulate discharges to waters on tribal lands. The CWA also directs states to establish water quality standards for waterways in their jurisdiction and to review and update these standards every three years (Section 303[c]).

Section 303(d) of the CWA requires states to periodically prepare a list of all surface waters in their respective jurisdictions for which beneficial uses of the water – such as for drinking, recreation, aquatic habitat, and industrial use – are impaired by pollutants. These include water bodies that do not meet state surface water quality standards and are not expected to improve within the next two years. States establish a priority ranking of these impaired waters for purposes of developing water quality control plans that include Total Maximum Daily Loads (TMDLs). A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards and includes an allocation for each of the pollutant’s sources. These water quality control plans describe how an impaired water body will meet water quality standards through the use of TMDLs.

Safe Drinking Water Act

Under the mandate of the Safe Drinking Water Act, the USEPA sets legally enforceable National Primary Drinking Water Regulations (primary standards) that apply to public water systems. These standards are established to protect human health by limiting the levels of contaminants in drinking water. The USEPA does not oversee the construction and permitting of groundwater wells, but requires that public health standards, such as an effectively installed sanitary seal, are in place, and recommends that water systems be installed to meet California Department of Public Health Standards. The USEPA will also primarily establish monitoring and operational requirements, which will typically be specific to the alternative sites.

The USEPA also defines National Secondary Drinking Water Regulations (secondary standards) for contaminants that cause cosmetic and aesthetic effects, but not health effects. The USEPA recommends that these secondary standards be met. Both primary and secondary drinking water standards are expressed as either MCLs, which define the highest level of a contaminant allowed in drinking water, or Maximum Contaminant Level Goals, which define the level of a contaminant below which there is no expected risk to health.

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act provides the basis for surface water and groundwater quality regulation within California. The act established the authority of the SWRCB and the nine RWQCBs. The act requires the state, through the SWRCB and the RWQCBs, to designate beneficial uses of surface waters and groundwater and specify water quality objectives designed to protect those uses. These water quality objectives are presented in the Regional Water Quality Control Plans. The Proposed Action site is located within the Central Coast RWQCB (SWRCB 2021). The Central Coast Basin Water Quality Control Plan (Basin Plan) designates beneficial uses and water quality objectives for all the ground and surface waters of the Region (San Diego RWQCBs 2016). The surface water quality standards for State of California include both narrative and numerical water quality objectives to keep California’s waters swimmable, fishable, drinkable, and suitable for use by industry, agriculture, and the citizens of the state.

3.8.2.2 Environmental Consequences

WWTF and Optional Solar Component

Construction of the WWTF and optional solar component would include grading and earthwork activities that could potentially result in erosion and sedimentation, which could subsequently degrade downstream receiving waters and violate water quality standards. Stormwater runoff during the construction phase may contain silt and debris, resulting in a short-term increase in the sediment load of the municipal storm drain system and adjacent Salinas River. In addition, substances such as oils, fuels, paints, and solvents may be inadvertently spilled on the Proposed Action site and subsequently conveyed via stormwater to nearby drainages and the Salinas River.

Because the Proposed Action would result in more than 1 acre of ground disturbance, the Proposed Action would be subject to the National Pollutant Discharge Elimination System stormwater program, which includes obtaining coverage under the State Water Resources Control Board's Construction General Permit. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground such as stockpiling or excavation. The Construction General Permit requires development and implementation of a SWPPP. Among the required items that must be included within a SWPPP are Proposed Action BMPs intended to protect against substantial soil erosion as a result of water and wind erosion. Examples of Proposed Action BMPs are included in Section 2.1.1.2.11, Erosion and Sediment Control. Implementation of the Construction General Permit, including preparation of a SWPPP and implementation of BMPs, would minimize sediment and pollutants in stormwater runoff during Proposed Action construction.

Furthermore, upon completion of construction, all areas of exposed soil would be returned to conditions similar to those prior to ground-disturbing activities (i.e., hardscape areas would be repaved and landscaped areas would be re-vegetated), thus minimizing long-term surface water quality impacts. Perched groundwater is present within alluvial deposits at a depth of 15 to 25 feet below ground surface. The District does not rely on this alluvial aquifer as a potable water source. However, based on nine existing wells in the Proposed Action area, including two on-site monitoring wells, it appears that upon construction there would be a localized impact to the shallow alluvial aquifer water quality beneath the Proposed Action site. Groundwater concentrations of total dissolved solids, nitrate, sodium, and chloride are elevated with respect to District water supply concentrations. These constituents in shallow groundwater are chronically out of compliance with effluent quality limits established by the Central Coast RWQCB, as set forth in Order 99-046. As a result, in compliance with Central Coast RWQCB recommendations, the District would include salt and nitrogen removal capability in the Proposed Action expansion plans, such that effluent would meet or exceed permitting requirements (Appendix B), thus resulting in beneficial impacts with respect to groundwater quality.

Therefore, construction and operation of these components of the Proposed Action would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Impacts would be less than significant.

Reclaimed Water System

Construction of the reclaimed water pipeline portion of the Proposed Action would occur primarily within existing asphalt roads using open trench methods. A typical trench would be 18 inches wide and 48 inches deep. The total required construction width could be up to 25 feet. Excavated soil would be temporarily stockpiled adjacent to the

trench pending backfill or transport off-site. As described for the WWTF and solar component, these soils would be temporarily subject to erosion, which in turn could result in sedimentation of adjacent drainages, ephemeral creeks, and the Salinas River. However, because pipeline installation would be completed in association with WWTF construction, and because pipeline construction would cumulatively disturb more than 1 acre of land, pipeline construction would similarly be subject to provisions of the Construction General Permit, including completion of a SWPPP and associated BMPs. Implementation of the Construction General Permit, including preparation of a SWPPP and implementation of BMPs, would minimize sediment and pollutants in stormwater runoff during Proposed Action construction. Furthermore, upon completion of construction, all areas of exposed soil would be returned to conditions similar to those prior to ground-disturbing activities (i.e., hardscape areas would be repaved, and landscaped areas would be re-vegetated), thus minimizing long-term surface water quality impacts.

The River Road Alignment of the proposed reclaimed water pipeline would traverse four ephemeral creeks that flow from east to west under River Road and into the Salinas River. Depending on final design and on city and state planning review, the pipeline would be constructed across these drainages as directionally drilled crossings, bored crossings, or open cut water crossings. The directionally drilled crossings and bored crossings would involve excavating a pit on each side of the drainage, as well as work areas up to about 400 feet by 200 feet for the entry pit and 100 feet by 200 feet for the exit pit. Spoils from the excavation would be placed alongside the pits. Spoils would be used as backfill, and wet spoils would be placed in detention basins if uncontaminated and otherwise suitable. Temporary ground disturbance and stockpiling of soil, pending backfill or off-site transport, would potentially result in erosion-induced sedimentation of these ephemeral creeks and the nearby Salinas River. However, such sedimentation would be minimized through implementation of BMPs, as previously described. Following completion of construction, all areas of exposed soil would be returned to conditions similar to those prior to ground-disturbing, thus minimizing long-term surface water quality impacts.

Directionally drilled borings include pumping drilling fluid through the drill pipe to the drill head. The drill fluid lubricates the drill stem and carries the cuttings to the surface. The entry pit doubles as a capture pit for the returned drilling fluid. The fluid is pumped through a treatment system that separates the cuttings from the fluid and reprocesses the fluid for reuse. The drill fluid is then recycled and re-injected into the drill stem. Although directional drilling techniques typically avoid impacts to water quality, the potential for impacts exists due to accidental release of drilling lubricants to the surface, known as a frac-out. A frac-out may occur as a result of loss of drilling lubricant, a loss of circulation, or an unexpected change in pressure. Frac-outs are usually resolved by reducing the drilling lubricant pressure or increasing its viscosity. Should a frac-out occur, it could result in the release of drilling lubricant into a jurisdictional water feature or adjacent to a jurisdictional water feature so that it could be washed into the feature, thereby adversely affecting water quality. Pursuant to California Fish and Game Code Section 5650, discharges into waters of the state that may be harmful to fish, plants, mammals, or birds are prohibited unless the discharge is expressly authorized pursuant to the terms of a Waste Discharge Requirement, in accordance with the Porter-Cologne Act. Without mitigation, the potential for frac-out related water quality impacts during construction would be potentially significant. However, upon implementation of MM-HYD-1, impacts would be reduced to below a level of significance. Thus, impacts of the Proposed Action are considered less than significant with mitigation incorporated.

The open cut method would require a trench to be cut across the ephemeral creeks, from bank to bank, along the River Road Alignment. The trench would be deep enough to allow the pipe to be placed below the anticipated scour depth of the waterbody. The waterbody would be crossed during the dry season or period of low flow if possible. The waterbody would be returned to its original configuration to the extent practicable, substrate would be replaced, and banks would be stabilized and re-vegetated, as necessary. It is anticipated that a U.S. Army Corps of Engineers

Nationwide Permit No. 12 (Utility Line Discharges), CDFW Streambed Alteration Agreement (1600 Agreement), and RWQCB Water Quality Certification would be obtained for these crossings. These permits would include provisions for protection of water quality, including BMPs for prevention of incidental releases of petroleum products and hazardous materials from construction equipment. In addition, these permits would include provisions for prevention of siltation of creek waters, such as through use of silt curtains in flowing waters and use of standard dry-land erosion control BMPs, such as straw wattles and silt fences, thus minimizing potential surface water quality impacts during construction.

Drainage patterns

WWTF and Optional Solar Component

The WWTF portion of the Proposed Action and proposed solar panels would be constructed on a relatively flat-lying terrace adjacent to the Salinas River. Although minor drainage improvements would be completed on site, the drainage pattern would not be substantially altered as a result of Proposed Action construction. Proposed Action construction, including the headworks building, secondary treatment building, disinfection/chemical storage building, and support facilities, would result in an increase in impervious surfaces, which in turn could result in increased runoff, on- or off-site erosive scour, and resultant siltation of the adjacent Salinas River. However, the Proposed Action would be developed in accordance with MM-HYD-2a, which would ensure that Low Impact Development (LID) BMP features are incorporated into the Proposed Action to ensure that an 85th percentile 24-hour rainfall event is treated and retained on site, and MM-HYD-2b, which would ensure that the Proposed Action does not discharge stormwater runoff generated by a 95th percentile, 24-hour storm event. As a result, impacts would be less than significant with mitigation incorporated.

Reclaimed Water System

Similarly, most of the proposed recycled water pipeline would be constructed on relatively flat-lying topography and the drainage patterns would not be altered as a result of construction. However, the open cut method may be used to traverse four ephemeral drainages along the River Road Alignment. These drainages would be temporarily altered during pipeline installation. The open cut method would require a trench to be cut across the waterbody from bank to bank. The trench would be deep enough to allow the pipe to be placed below the anticipated scour depth of the waterbody. The waterbody would be crossed during the dry season or a period of low flow if possible. The waterbody would be returned to its original configuration to the extent practicable, substrate would be replaced, and banks would be stabilized and re-vegetated, as necessary. As a result, long-term erosion or siltation, on or off site, would not occur and impacts would be less than significant.

Surface Runoff/Flooding

WWTF and Optional Solar Component

Runoff occurs when there is more water than land can absorb. An increase in impervious surfaces reduces the underlying soils' ability to absorb water, decreasing localized groundwater recharge rates and increasing runoff volumes. As previously discussed, development of the Proposed Action would result in an increase in impervious surfaces, which could result in a potentially significant increase of localized on- and off-site runoff into the adjacent Salinas River. However, the Proposed Action would include MM-HYD-2b, which would ensure that the Proposed Action does not discharge stormwater runoff generated by a 95th percentile, 24-hour storm event. As a result, impacts would be less than significant with mitigation incorporated.

Reclaimed Water System

As previously discussed, the open cut method may be used to traverse four ephemeral drainages along the River Road Alignment. These ephemeral drainages would be returned to their original configurations to the extent practicable, substrate would be replaced, and banks would be stabilized and re-vegetated, as necessary. An increase in impervious surfaces would not result from construction. As a result, the rate or amount of surface runoff would not increase, and impacts would be less than significant.

Create or Contribute Runoff Water

WWTF and Optional Solar Component

The WWTF and solar components of the Proposed Action could result in increased runoff and additional sources of polluted runoff that would be potentially significant. However, the Proposed Action would be developed in accordance with MM-HYD-2a, which would ensure that LID BMP features are incorporated into the Proposed Action to ensure that an 85th percentile 24-hour rainfall event is treated and retained on site, and MM-HYD-2b, which would ensure that the Proposed Action does not discharge stormwater runoff generated by a 95th percentile, 24-hour storm event. In addition, the solids management area of the WWTF would store and dispose of accumulated biosolids, sludge, and debris from the influent screening in accordance with all relevant County and municipal regulations related to water quality. As a result, with implementation of MM-HYD-2a and MM-HYD-2b, the WWTF and solar components of the Proposed Action would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant with mitigation incorporated.

Reclaimed Water System

The open cut method may be used to traverse four ephemeral drainages along the River Road Alignment. These ephemeral drainages would be returned to their original configurations to the extent practicable, substrate would be replaced, and banks would be stabilized and re-vegetated, as necessary. An increase in impervious surfaces would not result from construction. As a result, the rate or amount of surface runoff would not increase. In addition, pipeline construction would be subject to provisions of the Construction General Permit, including completion of a SWPPP and associated BMPs, which would minimize sediment and pollutants in stormwater runoff during Proposed Action construction. Furthermore, upon completion of construction, all areas of exposed soil would be returned to conditions similar to those prior to ground-disturbing activities, thus minimizing long-term surface water quality impacts. As a result, impacts would be less than significant.

Release of pollutants due to Proposed Action inundation

WWTF and Optional Solar Component

The eastern portion of the WWTF is within a 100-year Special Flood Hazard Area and the entire site, including the optional solar component, is within the 500-year floodplain. In addition, up to 4 feet of water could inundate the eastern portion of the WWTF in the event of failure of the Nacimiento Dam. This inundation area is similar to the 100-year floodplain. In the event of inundation, potential on-site contaminants, including untreated wastewater, screened solid waste, sludge, and trash, could be released downstream and into the neighboring environment, resulting in potentially significant impacts.

Based on modeling completed for the Proposed Action site (see Appendix B), the 500-year base flood elevation is 617 feet amsl. However, based on preliminary Proposed Action plans, the entire footprint area of the WWTF was assumed to be 619 feet amsl, or 2 feet above 500-year flood levels. As a result, the Proposed Action facilities would not be subject to flooding and associated risk of risk of pollutants. Impacts would be less than significant.

Reclaimed Water System

Much of the proposed reclaimed water pipeline would be within the 100-year and 500-year flood plain of the Salinas River. However, any potential rupture of the pipeline would only release treated water to the environment. No pollutants would be released. As a result, no impacts would occur.

Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan

WWTF, Optional Solar Component, and Reclaimed Water System

As discussed, the Proposed Action would have less-than-significant construction related impacts on water quality with implementation of a SWPPP and would therefore not conflict with or obstruct implementation of a water quality control plan. With respect to operations, the WWTF is within the jurisdiction of the Central Coast RWQCB and has been regulated by WDR Order No. 99-046, which was last revised in June 1999. The RWQCB drafted new General WDR Order No. R3-2020-0020, which became effective September 25, 2020. In conjunction with the upgrade/expansion of the WWTF, the District would be required to apply to the RWQCB to obtain coverage under this new General Permit.

Groundwater Impacts

WWTF and Optional Solar Component

Perched groundwater is present at a depth of approximately 15 to 25 feet below ground surface at the WWTF and adjacent optional solar component site (Appendix A). The Proposed Action is not anticipated to encounter groundwater during excavation or ground-disturbing activities. However, should groundwater be encountered, and dewatering be necessary during construction, discharges would be made in accordance with the Construction General Permit requirements outlined in Order No. 2009-0009-DWQ, Stormwater Discharges Associated with Construction and Land Disturbance Activities. If necessary, the groundwater would be pumped out of the excavation and discharged in accordance with the SWPPP. The amount of potential groundwater pumped would have minimal effects on the local aquifer because it would be temporary, would be localized in nature, and would consist of perched groundwater, which is not used as a drinking water source. Potential impacts associated with dewatering would be further reduced through the incorporation of waste management and materials pollution control BMPs and non-stormwater management BMPs included in the SWPPP. For these reasons, the WWTF and optional solar component of the Proposed Action would have less-than-significant impacts on groundwater.

Reclaimed Water System

As previously discussed, the open cut method would require a trench to be cut across four ephemeral creeks, from bank to bank, along the River Road Alignment. The trench would be deep enough to allow the pipe to be placed below the anticipated scour depth of the waterbody. Shallow groundwater may be present in these excavations. However, as discussed for the WWTF and optional solar component, should groundwater be encountered, and

dewatering be necessary during construction, discharges would be made in accordance with the Construction General Permit. The amount of potential groundwater pumped would have minimal effects on the local aquifer because it would be temporary, would be localized in nature, and would consist of perched groundwater, which is not used as a drinking water source. Potential impacts associated with dewatering would be further reduced through the incorporation of waste management and materials pollution control BMPs and non-stormwater management BMPs included in the SWPPP. For these reasons, the reclaimed water system portion of the Proposed Action would have less-than-significant impacts on groundwater.

No Action Alternative

Under the no-action alternative, the proposed expansion of the Machado Wastewater Treatment Plant and the optional solar facility would not occur and the Proposed Action site and would remain unchanged as no development activity would occur. As a result, this alternative would have no impact on water resources.

3.8.2.3 Mitigation

Implementation of MM-HYD-1 - Frac-Out Contingency Plan, MM-HYD-2a -Stormwater Quality, and MM-HYD-2b - Runoff Retention are required for the Proposed Action.

3.9 Socioeconomics and Environmental Justice

This section discusses potential impacts to socioeconomics and environmental justice from the implementation of the Proposed Action. The analysis below is based on the review of existing resources and information from the United States Census Bureau.

3.9.1 Affected Environment

San Miguel is a city located in San Luis Obispo County California. San Miguel has a 2020 population of 3,433 residents. The population density is made up of 76.99% white, 12.90% Asian, 1.17% of Native Hawaiian or Pacific Islander, 0.58% of African American, and 8.36% of two races or more. San Miguel's population has increased by 1.21% since the most recent census, which recorded a population of 3,392 in 2010. The median age in San Miguel is 44.9 years, 48.3 years for males, and 41.4 years for females.

There are 1,180 housing units available in the city, of which 92.0% are owner-occupied (U.S Census Bureau 2020). The average household income in San Miguel is \$85,556 with a poverty rate of 2.16%. Median income for a household in the city in 2013–2017 was \$172,073 (U.S Census Bureau 2020). The median rental costs in recent years comes to \$2,350 per month. The unemployment rate for the city is 2.8% (2020) and is lower than the State's unemployment rate of 4.7%.

3.9.2 Environmental Consequences

Proposed Action

Implementation of the Proposed Action would provide economic benefits to the local economy during the construction of the proposed components. Construction of the Proposed Action components is anticipated to

average approximately 20 workers per day, and during peak activities (e.g., site preparation and plant installation) up to 50 workers per day, commuting to and from the site and providing minor benefits to the local economy.

The applicant would recruit workers both locally and non-locally. Non-local construction workers would contribute to a minor increase in revenue for local businesses. Most workers would be expected to stay in local hotels, rental housing units or recreational vehicles and campgrounds in San Luis Obispo County. Typically, non-skilled workers do not bring families with them on temporary construction assignments. There are enough available housing/rental units and campground opportunities that the temporary increase in workers for construction should not strain the local communities or stress their resources.

Non-local construction workers are typically paid a per diem rate for daily housing and meal costs. Workers normally spend the per diem on motel accommodations or RV campground space rent, restaurants, groceries, gasoline, and entertainment. In addition, the Applicant would likely rent or purchase some portion of the equipment and supplies from local suppliers, primarily in San Luis Obispo County. The spending activity associated with the construction of the Proposed Action would have a small but positive effect on local businesses in San Miguel or San Luis Obispo County. Once operating, the Proposed Action would employ approximately 5 full time staff that would run the plant.

WWTF

The WWTF component of the Proposed Action is located within the community of San Miguel, within the existing WWTF site and on two parcels to the north of the existing WWTF. There is no housing proposed in the Proposed Action. The proposed WWTF expansion would increase the capacity of the WWTF to accommodate wastewater flows from the 2050 population projections. The Proposed Action would be built based on current projections; the As discussed above, the Proposed Action is not expected to induce substantial population growth. Workers employed during the construction phase would most likely come from surrounding communities and would not require any new long-term housing. The Proposed Action would not displace people or require the construction of replacement housing as the Proposed Action would be located within the existing WWTF site. Therefore, socioeconomic and environmental justice impacts would be less than significant.

Optional Solar Component

The proposed solar component would help maximize treatment efficiency and minimize overall cost. This would include the installation of ground-mounted solar panels in the northern portion of the Proposed Action site. However, no direct growth constraint would be removed, nor would a direct stimulus to growth be added. In addition, this element would not displace people or require the construction of replacement housing. Therefore, the socioeconomic and environmental justice impacts would be less than significant.

Reclaimed Water System

The proposed pipeline would involve the construction of new 8-inch HDPE water transmission and distribution pipelines to convey wastewater to large vineyards to the east and west of the WWTF. The Proposed Action would provide recycled water to the community area, which would potentially reduce the demand on available water supplies. This would not result in substantial or unplanned population growth in the area either directly or indirectly. Instead, it would accommodate the planned population projections through 2050. In addition, the proposed action construction would take place within the San Miguel community within existing paved streets and would not displace any housing. Therefore, the socioeconomic and environmental justice impacts would be less than significant.

No Action Alternative

Under the No Action Alternative, the proposed WWTF Expansion, solar component or reclaimed water system would not be constructed or operated. Therefore, there would be no potential impacts to socioeconomics or environmental justice.

3.9.3 Mitigation

No mitigation measures are required for the Proposed Action.

3.10 Air Quality and Greenhouse Gas Emissions

This section discusses potential impacts to air quality and from greenhouse gas emissions resulting from the implementation of the Proposed Action. The analysis is based on the review of existing resources and applicable laws regulations and guidelines and the Air Quality Memorandum prepared by Dudek in 2021 (Appendix G).

3.10.1 Affected Environment

Regulatory Setting

Clean Air Act

The Clean Air Act (CAA) of 1970, as amended, authorizes the USEPA to identify common air pollutants that impact air quality on a national level and establish corresponding National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. Accordingly, the USEPA has identified six CAPs: O₃, CO, PM, NO₂, SO₂, and Pb. The NAAQS are divided into primary standards, to protect public health, and secondary standards, to protect public welfare. Areas are designated attainment, nonattainment, or maintenance by the USEPA depending on whether concentrations of CAPs in each area exceed the established NAAQS. Non-attainment areas are required to take steps towards attainment within a specific period of time. Once an area reaches attainment for a particular CAP, then the area is re-designated as attainment or maintenance. The CAA places most of the responsibility on states to achieve compliance with the NAAQS. States, municipal statistical areas, and counties that contain areas of non-attainment are required to develop a State Implementation Plan (SIP) that outlines policies and procedures designed to bring the nonattainment area into compliance with the NAAQS.

Greenhouse Gas Emissions

Climate change refers to any significant change in measures of climate (e.g., temperature, precipitation, or wind patterns) lasting for an extended period of time (i.e., decades or longer). Earth's temperature depends on the balance between energy entering and leaving the planet's system, and many factors (natural and human) can cause changes in Earth's energy balance. The greenhouse effect is the trapping and buildup of heat in the atmosphere near Earth's surface (the troposphere). The greenhouse effect is a natural process that contributes to regulating Earth's temperature, and it creates a livable environment on Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing Earth's surface temperature to rise. Global climate change is a cumulative impact; a Proposed Action contributes to this impact through its incremental contribution combined with

the cumulative increase of all other sources of greenhouse gases (GHGs). Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

California Climate Change Scoping Plan (2017)

California's 2017 Climate Change Scoping Plan, approved by the California Air Resources Board (CARB) in 2008 and updated in 2014 and 2017, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The scoping plan is not directly applicable to specific Proposed Actions, and it is not intended to be used for Proposed Action-level evaluations. Under the scoping plan, however, there are several state regulatory measures aimed at identifying and reducing GHG emissions. CARB and other state agencies have adopted many of the measures identified in the scoping plan. Most of these measures focus on area-source emissions (e.g., energy usage and high-global warming potential (GWP) GHGs in consumer products) and changes to the vehicle fleet (e.g., hybrid, electric, and more-fuel-efficient vehicles) and associated fuels, among others.

San Luis Obispo Council of Government Regional Transportation Plan/Sustainable Communities Strategy (2019)

The San Luis Obispo Council of Governments' 2019 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) is a regional growth-management strategy that targets per-capita GHG reduction from passenger vehicles and light-duty trucks in San Luis Obispo County (SLOCOG 2019). The 2019 RTP/SCS incorporates local land use projections and circulation networks in city and county general plans. The 2019 RTP/SCS is not directly applicable to the Proposed Action because the purpose of the 2019 RTP/SCS is to provide direction and guidance by making the best transportation and land use choices for future development. However, the development of a recycled water pipeline and WWTF upgrades under the Proposed Action would not conflict with implementation of the strategies identified in the 2019 RTP/SCS that would reduce GHG emissions.

Senate Bill 32

Regarding consistency with Senate Bill 32 (goal of reducing GHG emissions to 40% below 1990 levels by 2030) and Executive Order S-3-05 (goal of reducing GHG emissions to 80% below 1990 levels by 2050), there are no established protocols or thresholds of significance for that future-year analysis. However, CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan: Building on the Framework that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by Assembly Bill 32" (CARB 2014). Regarding the 2050 target for reducing GHG emissions to 80% below 1990 levels, CARB (2014) states the following:

This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under Assembly Bill 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

Environmental Setting

San Miguel is located within the South-Central Coast Air Basin, which also includes Santa Barbara and Ventura Counties. Air quality within the South-Central Coast Air Basin is regulated by several jurisdictions including the USEPA, CARB, and the San Luis Obispo County Air Pollution Control District (SLOAPCD). The County is currently designated as “nonattainment” for the state standards for ozone, partial nonattainment (in eastern San Luis Obispo County, outside of the Proposed Action area) for federal ambient standards for ozone, and nonattainment for the state standards for particulate matter less than or equal to 10 microns in diameter (PM₁₀). The SLOAPCD has developed a California Environmental Quality Act (CEQA) Air Quality Handbook (most recently updated with a November 2017 Clarification Memorandum) to evaluate Proposed Action-specific impacts and determine if potentially significant impacts could result from a Proposed Action (SLOAPCD 2012, 2017). To evaluate long-term emissions, cumulative effects, and establish countywide programs to reach acceptable air quality levels, a Clean Air Plan has been adopted by the SLOAPCD (2001).

The emissions presented within this assessment are compared to the SLOAPCD construction and operational thresholds from SLOAPCD’s CEQA Air Quality Handbook (2012). SLOAPCD has adopted emissions-based thresholds to address the significance of air quality impacts resulting from a Proposed Action, which are discussed below.

Construction

SLOAPCD has developed specific daily and quarterly quantitative thresholds that apply to Proposed Actions within the South-Central Coast Air Basin. The applicable thresholds from Table 2-1 of the SLOAPCD’s CEQA Air Quality Handbook are described below (SLOAPCD 2012).

Reactive Organic Gases and Oxides of Nitrogen Emissions

- For all construction Proposed Actions, exceedance of the 137 pounds per day shall implement Standard Mitigation Measures.
- Quarterly – Tier 1. For construction Proposed Actions lasting more than one quarter, exceedance of the 2.5 tons per quarter threshold requires Standard Mitigation Measures and Best Available Control Technology (BACT) for construction equipment. If implementation of the Standard Mitigation and BACT measures cannot bring the Proposed Action below the threshold, off-site mitigation may be necessary.
- Quarterly – Tier 2. For construction Proposed Actions lasting more than one quarter, exceedance of the 6.3 tons per quarter threshold requires Standard Mitigation Measures, BACT, implementation of a Construction Activity Management Plan, and off-site mitigation.

Diesel Particulate Matter Emissions

- For construction Proposed Actions expected to be completed in less than one quarter, exceedance of the 7 pounds per day shall implement Standard Mitigation Measures.
- Quarterly – Tier 1. For construction Proposed Actions lasting more than one quarter, exceedance of the 0.13 tons per quarter threshold requires Standard Mitigation Measures and BACT for construction equipment.
- Quarterly – Tier 2. For construction Proposed Actions lasting more than one quarter, exceedance of the 0.32 ton per quarter threshold requires Standard Mitigation Measures, BACT, implementation of a Construction Activity Management Plan, and off-site mitigation.

Fugitive Particulate Matter (PM₁₀), Dust Emissions

- Quarterly: Exceedance of the 2.5 tons per quarter threshold requires fugitive PM₁₀ mitigation measures and may require the implementation of a Construction Activity Management Plan.

Operation

The SLOAPCD's operational significance thresholds from Table 3-2 of the SLOAPCD Guidelines are shown in Table 7 (SLOAPCD 2012).

Table 7. Thresholds of Significance for Operational Emissions Impacts

Pollutant	Threshold	
	Daily (lbs/day)	Annual (tons/year)
Ozone Precursors (ROG + NO _x)	25	25
Diesel Particulate Matter	1.25	NA
Fugitive Particulate Matter (PM ₁₀), Dust	25	25
Carbon Monoxide	550	NA

Source: Table 3-2 of SLOAPCD Guidelines 2012.

Notes: lbs = pounds; NA = not applicable; ROG = reactive organic gases; NO_x = oxides of nitrogen; PM₁₀ = particulate matter less than or equal to 10 microns in diameter.

Greenhouse Gas Emissions

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include CO₂, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride. The three GHGs evaluated herein are CO₂, methane, and nitrous oxide. Emissions of hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride are generally associated with industrial activities including the manufacturing of electrical components, heavy-duty air conditioning units, and insulation of electrical transmission equipment (substations, power lines, and switch gears.). Therefore, emissions of these GHGs were not evaluated or estimated in this analysis because the Proposed Action would not include these activities or components and would not generate hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride in measurable quantities.

The Intergovernmental Panel on Climate Change developed the GWP concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The reference gas used is CO₂; therefore, GWP-weighted emissions are measured in metric tons (MT) of CO₂ equivalent (CO₂e). Consistent with California Emissions Estimator Model (CalEEMod) version 2016.3.2, this GHG emissions analysis assumed the GWP for methane is 25 (i.e., emissions of 1 MT of methane are equivalent to emissions of 25 MT of CO₂), and the GWP for nitrous oxide is 298, based on the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007).

Pursuant to the authority granted to it, CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The emissions presented within this assessment are compared to the SLOAPCD construction and operational thresholds from the SLOAPCD's CEQA Air Quality Handbook

(SLOAPCD 2012). The SLOAPCD has adopted emissions-based thresholds to address the significance of GHG impacts resulting from a Proposed Action, which are discussed below. The thresholds of significance for a Proposed Action's amortized construction plus operational-related GHG emissions are as follows:

- For land use development Proposed Actions, the threshold is compliance with a qualified GHG Reduction Strategy; OR annual emissions less than 1,150 MT/year of CO₂e; or 4.9 MT CO₂e/service population (SP)/year (residents + employees). Land use development Proposed Actions include residential, commercial and public land uses and facilities. Lead agencies may use any of the three options above to determine the significance of a Proposed Action's GHG emission impact to a level of certainty.
- For stationary-source Proposed Actions, the threshold is 10,000 MT/year of CO₂e. Stationary-source Proposed Actions include land uses that would accommodate processes and equipment that emit GHG emissions and would require an APCD permit to operate.

As the Proposed Action is an industrial development it will be compared to the bright-line threshold of 1,150 MT CO₂e per year. In accordance with the SLOAPCD Handbook, the construction GHG emissions will be amortized over 25 years and added to the operational GHG emissions to compare to the threshold.

Construction Phase Methodology

Construction assumptions, including timing, phasing, equipment type and quantity, as well as worker and vendor truck trips, were based on CalEEMod Version 2016.3.2 default assumptions. Default values provided by CalEEMod were used where detailed Proposed Action information was not available. For purposes of estimating Proposed Action criteria air pollutant emissions, it is assumed that construction of the Proposed Action would commence in January 2022 and would end in January 2023. The analysis contained herein is based on the following assumptions; the duration of phases is approximate:

- Site preparation – 4 months
- Trenching – 3 months
- Plant installation – 5 months
- Demobilization – 1 week
- Pre-construction utility locations and potholing – 3 weeks
- Excavation of bore/receiving pits – 2 weeks
- Installation of pipe – 3 months
- Backfill – 2 weeks
- Installation of metered turnouts – 1 month
- Pavement repairs – 2 weeks

Estimated average workers and the construction equipment mix used for estimating the construction emissions of the Proposed Action is based on CalEEMod defaults. For worker and vendor trips, the default CalEEMod assumptions for one-way trips were rounded up to the nearest even number to account for whole round-trips. The Proposed Action would result in 11 cubic yards of export during the excavation of bore/receiving pits phase and 27 cubic yards of import during the backfill phase. For this analysis, it was generally assumed that heavy construction equipment would operate 5 days a week (22 days per month) during Proposed Action construction.

Operational Phase Methodology

Emissions from the operational phase of the Proposed Action were estimated using CalEEMod. Operational year 2023 was assumed as it would be the follow completion of construction of all phases.

Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2017). Consumer product ROG emissions were estimated in CalEEMod based on the floor area of buildings and default factor of pounds of ROG per building square foot per day. The CalEEMod default values for consumer products were assumed.

ROG off-gassing emissions result from evaporation of solvents contained in surface coatings, such as in paints and primers used during building maintenance. CalEEMod calculates the ROG evaporative emissions from the application of surface coatings based on the ROG emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days. Based on CalEEMod defaults for the County of San Luis Obispo, the average annual number of summer days is estimated at 250 days (CAPCOA 2017).

Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage (non-hearth). Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for GHGs in CalEEMod, since criteria pollutant emissions occur at the site of the power plant, which is typically off site. CalEEMod default values for energy consumption for each land use were applied for the Proposed Action analysis. The energy use from commercial land uses is calculated in CalEEMod based on the Commercial End-Use Survey (CAPCOA 2017).

Mobile Sources

The Proposed Action would generate criteria pollutant emissions from mobile sources (vehicular traffic) as a result of the employees of the Proposed Action. The Proposed Action would include an additional two employees during operation. CalEEMod default data, trip modes, trip lengths, fleet mix, and emissions factors were used for the model inputs. CalEEMod default vehicle emission factors and vehicle fleet mix for 2023, as based on the CARB EMFAC2014 model, were used to estimate emissions associated with vehicular sources.

Stationary Sources

The Proposed Action would include the addition of a 500-horsepower natural gas fired backup generator. The generator was assumed to operate up to 1 hour per day and 100 hours per year for maintenance and testing in accordance with SLOAPCD Rule 431. CalEEMod default emission factors for natural-gas engines were assumed.

Greenhouse Gas Emissions Methodology

Construction Phase GHG

CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in Section 2.1.1.2.11, Construction Activities of the Proposed Action, is anticipated to commence in January 2022 and would last through June 2023 (approximately 18 months). On-site sources of GHG emissions include off-road equipment; off-site sources include haul trucks, vendor trucks, and worker vehicles.

Operational Phase GHG

GHG emissions from the operational phase of the Proposed Action were estimated using CalEEMod Version 2016.3.2. Operational year 2023 was assumed consistent with completion of Proposed Action construction. Potential Proposed Action-generated operational GHG emissions were estimated for area sources (landscape maintenance) and emergency generators. Emissions from each category are discussed in the following text with respect to the Proposed Action.

Area Sources

CalEEMod was used to estimate GHG emissions from the Proposed Action's area sources, which include operation of gasoline-powered landscape maintenance equipment, which produce minimal GHG emissions. See the operational phase methodology for a discussion of landscaping equipment emissions calculations. Consumer product use and architectural coatings result in VOC emissions, which are analyzed in air quality analysis only, and little to no GHG emissions.

Energy

In addition to the energy source emissions (natural gas use) discussed in the operational phase methodology above, the Proposed Action would result in an increase in energy use associated with the additional pumps. The additional electric pumps would result in the annual consumption of 272,290 kilowatt hours per year, which would result in indirect GHG emissions.

Mobile Sources

As discussed in the operational phase methodology above, the Proposed Action would add two employees during operation. All other mobile source assumptions included in the operational phase methodology apply herein.

Stationary Source

The Proposed Action would include the addition of a 500-horsepower natural gas fired backup generator. The generator was assumed to operate up to 1 hour per day and 100 hours per year for maintenance and testing in accordance with SLOAPCD Rule 431. CalEEMod default emission factors for natural-gas engines were assumed.

Solid Waste

The Proposed Action would generate solid waste, and therefore, result in CO₂e emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation were used to estimate GHG emissions associated with solid waste for the Proposed Action.

Water and Wastewater Treatment

Supply, conveyance, treatment, and distribution of water for the Proposed Action would require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the Proposed Action would require the use of electricity for conveyance and treatment, and GHG emissions would be generated during wastewater treatment. The indoor and outdoor water use and electricity consumption from water use and wastewater generation were estimated using CalEEMod default values for the Proposed Action.

Construction Phase Analysis

As explained previously, CalEEMod was used to estimate emissions from construction of the Proposed Action. Construction emissions can vary substantially from day to day, depending on the level of activity; the specific type of operation; and, for particulate matter, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated.

Proposed construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, minimal soil disturbance, and reactive organic gas (ROG) off-gassing from application of asphalt and paint) and off-site sources (i.e., on-road vendor trucks and worker vehicle trips). Internal combustion engines used by construction equipment, trucks, and worker vehicles would result in emissions of ROGs, oxides of nitrogen, carbon monoxide (CO), PM₁₀, and particulate matter less than or equal to 2.5 microns in diameter (PM_{2.5}). PM₁₀ and PM_{2.5} emissions would also be generated by entrained dust, which results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil. The Proposed Action would be required to comply with SLOAPCD Rule 401 to control dust emissions generated during any dust-generating activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active dust areas two times per day, with additional watering depending on weather conditions. The Proposed Action would involve application of architectural coating (e.g., paint and other finishes) for painting the Proposed Action. The contractor is required to procure architectural coatings from a supplier that complies with the requirements of SLOAPCD Rule 433 (Architectural Coatings). Table 8 presents the estimated maximum daily construction emissions generated during construction of the Proposed Action. Details of the emission calculations are provided in Appendix E.

Table 8. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Year	Pounds per day					
2022	8.50	88.56	55.51	0.13	10.54	5.90
2023	0.64	5.08	6.89	0.01	0.35	0.26
Maximum ROG + NO_x	93.64		—	—	—	—
<i>SLOAPCD Threshold</i>	137		—	—	—	—
Threshold Exceeded?	No		—	—	—	—

Notes: ROG = reactive organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; SLOAPCD = San Luis Obispo County Air Pollution Control District. See Appendix G for complete results.

As shown in Table 8, the Proposed Action's construction emissions would not exceed SLOAPCD's daily thresholds. Therefore, construction impacts associated with criteria air pollutant emissions would be less than significant.

Table 9 presents the Proposed Action's maximum quarterly emissions compared to the SLOAPCD's thresholds.

Table 9. Estimated Maximum Quarterly Construction Criteria Air Pollutant Emissions

			ROG + NO _x	DPM	Fugitive PM ₁₀
Quarter	Start Date	End Date	Tons per Quarter		
1	1-3-2022	4-2-2022	1.81	0.08	0.05
2	4-3-2022	7-2-2022	0.86	0.08	0.05
3	7-3-2022	10-2-2022	2.17	0.08	0.05
4	10-3-2022	1-2-2023	2.82	0.08	0.05
5	1-3-2023	4-2-2023	0.07	0.00	0.00
6	4-3-2023	7-2-2023	0.07	0.00	0.00
Maximum			2.82	0.08	0.05
<i>SLOAPCD Tier 1 Threshold</i>			2.5	0.13	2.5
Threshold Exceeded?			Yes	No	No

Notes: ROG = reactive organic compound; NO_x = oxides of nitrogen; DPM = diesel particulate matter; PM₁₀ = coarse particulate matter; SLOAPCD = San Luis Obispo County Air Pollution Control District. See Appendix G for complete results.

As shown in Table 9, the Proposed Action's construction emissions would not exceed the APCD's quarterly thresholds for DPM and fugitive PM₁₀. However, emissions of ROG and oxides of nitrogen would exceed the SLOAPCD Tier 1 threshold. Therefore, the Proposed Action requires the implementation of Standard Mitigation Measures and BACT for construction equipment in accordance with the SLOAPCD 2012 CEQA Handbook. In accordance with Section 2.3.2 of the SLOAPCD 2012 CEQA Handbook, the Proposed Action would implement the use of Tier 3 off-road engines.

Table 10 shows the maximum quarterly construction emissions with implementation of BACT.

Table 10. Estimated Maximum Quarterly Construction Criteria Air Pollutant Emissions with BACT

Quarter	Start Date	End Date	ROG + NO _x	DPM	Fugitive PM ₁₀
			Tons per Quarter		
1	1-3-2022	4-2-2022	1.37	0.06	0.05
2	4-3-2022	7-2-2022	0.66	0.06	0.05
3	7-3-2022	10-2-2022	1.47	0.06	0.05
4	10-3-2022	1-2-2023	1.90	0.06	0.05
5	1-3-2023	4-2-2023	0.12	0.01	0.00
6	4-3-2023	7-2-2023	0.08	0.00	0.00
Maximum			1.90	0.06	0.05
<i>SLOAPCD Tier 1 Threshold</i>			2.5	0.13	2.5
Threshold Exceeded?			No	No	No

Notes: BACT = best achievable control technology; ROG = reactive organic compound; NO_x = oxides of nitrogen; DPM = diesel particulate matter; PM₁₀ = coarse particulate matter; SLOAPCD = San Luis Obispo County Air Pollution Control District. See Appendix G for complete results.

As shown in Table 10, the Proposed Action would not exceed the SLOAPCD Tier 1 thresholds with application of BACT. Impacts would be considered less than significant.

Operational Phase Analysis

Table 11 presents the emissions during operation.

Table 11. Estimated Maximum Operational Criteria Air Pollutant Emissions

Source	ROG	NOx	CO	DPM	Fugitive PM10
	Pounds per day				
Area	0.57	0.00	0.00	0.00	0.00
Energy	0.01	0.10	0.08	0.00	0.00
Mobile	0.01	0.03	0.10	0.00	0.03
Stationary	4.40	0.33	11.46	0.00	0.00
Total	4.99	0.46	11.65	0.00	0.03
Total ROG + NOx	5.45		—	—	—
SLOAPCD Threshold	25		550	1.25	25
Threshold Exceeded?	No		No	No	No
Tons per year					
Area	0.10	0.00	0.00	0.00	0.00
Energy	0.00	0.02	0.02	0.00	0.00
Mobile	0.00	0.01	0.02	0.00	0.01
Stationary	0.22	0.02	0.57	0.00	0.00
Total	0.32	0.05	0.61	0.00	0.01
Total ROG + NOx	0.37		—	—	—

Table 11. Estimated Maximum Operational Criteria Air Pollutant Emissions

Source	ROG	NO _x	CO	DPM	Fugitive PM ₁₀
	Pounds per day				
<i>SLOAPCD Threshold</i>	25	—	—	—	25
<i>Threshold Exceeded?</i>	No	—	—	—	No

Notes: ROG = reactive organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; SLOAPCD = San Luis Obispo County Air Pollution Control District. See Appendix G for complete results.

As shown in Table 11, the Proposed Action would not exceed the SLOAPCD's daily or annual significance thresholds during operations. Impacts would be considered **less than significant**.

Greenhouse Gas Emissions Analysis

Construction Phase GHG

Table 12 presents construction GHG emissions for the Proposed Action from on-site and off-site emission sources.

Table 12. Estimated Annual Construction GHG Emissions

Year	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
2022	973.66	0.25	0.00	979.90
2023	40.67	0.01	0.00	40.91
Total				1,020.81
<i>Amortized Emissions (over 25 years)</i>				<i>40.83</i>

Notes: CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent. See Appendix E for complete results.

As shown in Table 12, the estimated total GHG emissions during construction of the Proposed Action would be approximately 1,021 MT CO₂e. Estimated Proposed Action-generated construction emissions amortized over 25 years would be approximately 41 MT CO₂e per year. As with Proposed Action-generated construction air quality pollutant emissions, GHG emissions generated during the construction of the Proposed Action would be short term in nature, lasting only the duration of the construction period, and would not represent a long-term source of GHG emissions.

Operational Phase GHG

The estimated operational Proposed Action-generated GHG emissions are shown in Table 13.

Table 13. Estimated Annual Operational GHG Emissions - Unmitigated

Emission Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
Area	0.00	0.00	0.00	0.00
Energy	63.40	0.01	0.00	64.05

Table 13. Estimated Annual Operational GHG Emissions - Unmitigated

Emission Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
	Metric Tons per Year			
Mobile	5.72	0.00	0.00	5.72
Stationary	12.75	0.03	0.00	13.41
Waste	3.56	0.21	0.00	8.82
Water	0.81	0.03	0.00	1.84
Total				93.85
<i>Amortized construction emissions</i>				<i>40.83</i>
Total operational + amortized construction GHGs				134.68

Notes: GHG = greenhouse gas; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent. See Appendix E for complete results. Totals may not sum due to rounding.

As shown in Table 13, estimated annual Proposed Action-generated GHG emissions would be approximately 94 MT CO₂e per year as a result of Proposed Action operations only. After accounting for amortized Proposed Action construction emissions, total GHGs generated by the Proposed Action would be approximately 135 MT CO₂e per year. As such, annual operational GHG emissions with amortized construction emissions would not exceed the SLOAPCD threshold of 1,150 MT CO₂e per year. Therefore, impacts would be less than significant.

Sensitive Receptors

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to SLOAPCD, sensitive receptors are people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling units (SLOAPCD 2012). There are existing single-family residences located along the southern boundary of the Proposed Action site and to the west across Mission street from the Proposed Action.

Carbon Monoxide Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed “CO hotspots.” The transport of CO is extremely limited, as it disperses rapidly with distance from the source. Under certain extreme meteorological conditions, however, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting sensitive receptors. Typically, high CO concentrations are associated with severely congested intersections operating at an unacceptable level of service (level of service E or worse is unacceptable). Proposed Actions contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a Proposed Action would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots.

Code of Federal Regulations Title 40, Section 93.123(c)(5), Procedures for Determining Localized CO, PM₁₀, and PM_{2.5} Concentrations (Hot-Spot Analysis), states that “CO, PM₁₀, and PM_{2.5} hot-spot analyses are not required to

consider construction-related activities, which cause temporary increases in emissions. Each site that is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last 5 years or less at any individual site." Although Proposed Action construction would involve on-road vehicle trips from trucks and workers during construction, construction activities would last approximately 18 months and would not require a Proposed Action-level construction hotspot analysis. Furthermore, because the Proposed Action would not result in an increase in long-term operational vehicular trips, an operational CO hotspot evaluation also is not required.

Accordingly, the Proposed Action would not generate traffic that would contribute to potential adverse traffic impacts that may result in the formation of CO hotspots. In addition, because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the South Central Coast Air Basin is steadily decreasing. Based on these considerations, the Proposed Action would result in a less-than-significant impact to air quality from potential CO hotspots.

Toxic Air Contaminants

Toxic air contaminants (TACs) are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. The Proposed Action is located in close proximity to existing residential receptors. Health effects from carcinogenic air toxics are usually described in terms of cancer risk. SLOAPCD recommends an incremental cancer risk threshold of 10 in 1 million. "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a Proposed Action over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard California Office of Environmental Health Hazard Assessment risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. SCAQMD recommends a Hazard Index of 1 or more for acute (short-term) and chronic (long-term) non-carcinogenic effects. The toxic air contaminant that would potentially be emitted during construction activities associated with development of the Proposed Action would be diesel particulate matter.

Diesel particulate matter emissions would be emitted from heavy equipment operations and heavy-duty trucks. Heavy-duty construction equipment is subject to a CARB Airborne Toxics Control Measure for diesel construction equipment to reduce diesel particulate emissions. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should be limited to the period and duration of activities associated with the Proposed Action. The duration of the proposed construction activities would only constitute a small percentage of the total 30-year exposure period. The active construction period for the Proposed Action would be approximately 18 months, after which construction-related toxic air contaminant emissions would cease. Also, since the pipeline construction would proceed along the alignment, the Proposed Action would not require the extensive use of heavy-duty construction equipment or diesel trucks in any one location over the duration of development, which would limit the exposure of any proximate individual sensitive receptor to TACs. Due to the relatively short period of exposure at any individual sensitive receptor and minimal particulate emissions generated, TACs emitted during construction would not be expected to result in concentrations causing significant health risks, which would be a less than significant impact.

During operations, the Proposed Action would emit small quantities of toxic air contaminant emissions during testing and maintenance of the natural-gas emergency generator. However, maintenance and testing would be limited to a maximum of 1 hour at a time and would only occur once per month. As such, emissions of TACs would have a less than significant impact during operation.

Other Emissions (Odors)

Other emissions associated with the Proposed Action are anticipated to be limited to odors, which are assessed herein. The occurrence and severity of potential odor impacts depend on numerous factors. The nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receiving location each contributes to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress, and generate citizen complaints.

During Proposed Action construction, exhaust from equipment may produce discernible odors typical of most construction sites. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from the tailpipes of construction equipment. However, such odors would disperse rapidly from the Proposed Action site and generally occur at magnitudes that would not affect substantial numbers of people. Accordingly, impacts associated with odors during construction would be less than significant.

SLOAPCD provides a list of land uses associated with odor concerns, which include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SLOAPCD 2012). The Proposed Action would include development of a recycled water pipeline and upgrades to the existing WWTF. Odor control would be installed to minimize wet-well turbulence, including collection of odors in scrubbers or biofilters or the addition of odor control chemicals to the sewer upstream of the pump station. Chemicals typically used for odor control include chlorine, hydrogen peroxide, metal salts (ferrous chloride and ferric sulfate), oxygen, air, and potassium permanganate. Further, the Proposed Action would not result in uncontrolled sources of odor during operations. Impacts would be less than significant.

3.10.2 Environmental Consequences

Proposed Action

The SLOAPCD has developed the CEQA Air Quality Handbook to evaluate Proposed Action-specific impacts and help determine if air quality mitigation measures are needed, or if potentially significant impacts could result (SLOAPCD 2012). To evaluate long-term emissions, cumulative effects, and establish countywide programs to reach acceptable air quality levels. As shown in detail in Threshold 3.3(b), the Proposed Action would not exceed the SLOAPCD significance thresholds during construction or operation. Furthermore, the Proposed Action would not propose a change in land use and would be consistent with the general plan land use designation. The Proposed Action would result in an additional two employees. The San Luis Obispo Council of Governments Proposed Actions an increase of 18,207 jobs between 2015 and 2045, or 607 jobs per year (SLOCOG 2019). As such, the Proposed Action would include growth that is anticipated within the San Luis Obispo Council of Governments' RTP/SCS and 2050 Regional Growth Forecast. Additionally, the Proposed Action would be consistent with the general level of development anticipated and projected in the Clean Air Plan and would therefore not conflict with or obstruct the implementation of the applicable air quality plan. Therefore, the Proposed Action would not conflict of an air quality plan and impacts would be less than significant.

The Proposed Action would not interfere with implementation of GHG reduction goals for 2030 or 2050 because it would result in a minimal increase in local GHG emissions from pump station electricity when compared to baseline conditions (because the existing lift station is not currently operating). In addition, the Proposed Action would not conflict with the state's trajectory toward future GHG reductions. As mentioned previously, from an energy

perspective, the ability to utilize local sources of water reduces use and future dependency on imported water supplies, the conveyance of which is one of the largest consumers of energy in California. Based on the preceding considerations, the Proposed Action would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs; therefore, impacts would be less than significant.

No Action Alternative

Under the No Action Alternative, the proposed expansion of the Machado Wastewater Treatment Plant and the optional solar facility would not occur. As a result, no adverse impacts to air quality or from GHG emissions would occur as a result of this alternative.

3.10.3 Mitigation

No mitigation is required for the Proposed Action.

3.11 Noise

This section discusses potential impacts from noise and vibration resulting from the implementation of the Proposed Action. The analysis is based on the review of existing resource, and applicable noise laws and ordinances.

3.11.1 Affected Environment

Environmental Setting

Existing operations are the primary source of ambient noise at the Proposed Action site. Noise-sensitive uses in the Proposed Action vicinity include existing residences. No existing sources of groundborne vibration (aside from vehicular traffic, which produces relatively low levels) are located in the Proposed Action vicinity.

3.11.2 Environmental Consequences

Proposed Action

Construction Noise

Noise generated by Proposed Action construction equipment would include a combination of heavy equipment including dozers, front end loaders, backhoes, and air compressors that, when combined, can reach relatively high levels. The number and mix of construction equipment would likely vary during the following phases: site preparation, grading, building construction, paving, and architectural coating.

Using specific construction equipment assumptions similar to those as used for the air quality analysis, a noise model emulating the Roadway Construction Noise Model that was developed by the Federal Highway Administration (FHWA 2008) was utilized. Input variables for the Roadway Construction Noise Model consist of the receiver/land use types, the equipment type (i.e., backhoe, crane, truck, etc.), the number of equipment pieces, the duty cycle for each piece of equipment (i.e., percentage of each time period the equipment typically is in operation and operating at full load or power level), and the distance between the construction noise source and the sensitive receiver. The

Roadway Construction Noise Model has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns.

Noise-sensitive land uses in the vicinity of the Proposed Action site include existing residences. Consequently, Proposed Action construction noise exposure levels at other receivers further away from the site would be less, due primarily to natural distance-dependent attenuation factors such as geometric divergence, air absorption, ground surface absorption, and potential path-occluding structures and topography. Construction would occur during daytime hours, between 7am-6pm, reducing impacts to residents. Implementation of mitigations measures MM-NOI-1 and MM NOI-2 would reduce construction generated noise at the project site and promote effective communication with local residents that would potentially be impacted by construction related noise.

Construction Vibration

The main concern associated with groundborne vibration is annoyance; however, in extreme cases, vibration can cause damage to buildings, particularly those that are old or otherwise fragile. Some common sources of groundborne vibration are trains and construction activities such as blasting, pile-driving, and heavy earth-moving equipment. The primary source of groundborne vibration occurring as part of the Proposed Action is construction activity.

The California Department of Transportation (Caltrans) has collected and compiled groundborne vibration information related to construction/use of heavy equipment. This information indicates that continuous/intermittent vibrations (such as from construction activity) with approximately 0.1 inches per second peak particle velocity may be characterized as “strongly perceptible” (Caltrans 2020). The heavier pieces of construction equipment, such as large bulldozers or hoe rams, would register up to approximately 0.089 inches per second peak particle velocity at a distance of 25 feet per FTA guidance (FTA 2018).

The major concern with construction vibration is related to building damage. Construction vibration as a result of the Proposed Action would not result in structural building damage given the construction methods that are proposed. Impacts related to groundborne vibration would be less than significant.

Operational Noise

Operational noise associated with the Proposed Action would be no different than the existing use therefore impacts would be less than significant.

Operational Vibration

Operational vibration associated with the Proposed Action would be no different than the existing use therefore impacts would be less than significant.

No Action Alternative

Under the No Action Alternative, the proposed expansion of the Machado Wastewater Treatment Plant and the optional solar facility would not occur. As a result, no adverse noise or vibration impacts would occur as a result of this alternative.

3.11.3 Mitigation

Implementation of mitigation measures MM-NOI-1 and MM-NOI-2 are required for the proposed action.

3.12 Transportation

This section discusses potential transportation impacts resulting from the implementation of the Proposed Action. The analysis is based on the review of existing resources and applicable laws regulations and guidelines.

3.12.1 Affected Environment

Existing Facilities and Routes

The current and expansion WWTF property is located close to the northern limits of San Miguel, San Luis Obispo County, California. The transportation network within the Proposed Action area is composed of a mix of interstate, county highways, and local roadways. Several regionally and locally significant roadways are within the vicinity of the Proposed Action area. U.S. Highway 101 is the primary north-south transportation route that traverses the region. North of Paso Robles, residential development is more scattered and commercial uses are largely concentrated around the Wellsona Road intersection. The UPRR tracks run through the middle of San Miguel, equidistant from U.S. Highway 101 and the Salinas River (County of San Luis Obispo 2016b).

The Proposed Action site is bordered by the UPRR to the west, the Salinas River to the east, residences on Benedict Street to the south, and open space to the north. Access to the WWTF is provided by a paved access driveway off of Bonita Place. Once on the WWTF property, roads around the aerated treatment ponds and percolation ponds are unpaved. The Proposed Action would not change the existing access to the site. The proposed work areas would be primarily accessed via the existing access roads. Construction trucks and equipment may use roadways such as access that existing roads when traveling to the proposed grading sites.

The nearest public airport to the Proposed Action site, the Paso Robles Municipal Airport, is 7 miles away. The Proposed Action site is not located within the Airport Influence Area established in the Airport Land Use Plan (City of Paso Robles 2007). Due to the remoteness of the Proposed Action area, bicycle routes and pedestrian facilities (sidewalks) are nonexistent.

The Parks and Recreation Element of the San Luis Obispo County General Plan identifies the proposed Salinas River Trail as a multi-use trail that would run along the Salinas River from Santa Margarita Lake to the Monterey County line. The proposed trail runs directly through the existing and proposed WWTF property. However, the Proposed Action would be constructed on the west side of the Proposed Action site, and the future trail is proposed further east, closer to the Salinas River.

3.12.2 Environmental Consequences

WWTF

Construction Impacts

Construction activities associated with the WWTF would occur entirely on site. A temporary construction staging area would be located on District property at the WWTF to store construction equipment, material, and temporary office space. Construction of the WWTF would generate short-term, construction-related vehicle and truck trips during the construction period. The construction workforce is anticipated to average approximately 20 workers per day, and during peak activities (e.g., site preparation and plant installation) up to 50 workers per day, commuting to and from the site. The Proposed Action would also generate truck trips to the site. The number of trucks needed would fluctuate throughout construction; however, it is estimated that even during the peak construction phase, there would be an average of less than one truck trip per day. Traffic accessing the site would be minimal and temporary and would not conflict with an applicable program, plan, ordinance, or policy addressing the performance of the circulation system, including public transit, roadway, bicycle or pedestrian facilities.

Construction of the WWTF would occur entirely on site and no changes to the existing access driveway are proposed. Construction would not result in any design features or incompatible uses that would substantially increase traffic hazards. In addition, construction of the WWTF would not result in inadequate emergency access. Improvements would occur within the existing footprint of the WWTF and emergency access to the site would continue to be provided from Bonita Place. Emergency access to the work areas would be maintained throughout construction. Thus, impacts would be less than significant during the construction period.

Operational Impacts

Once constructed, a total of five employees would be required to staff the plant 24 hours a day, 7 days a week. The Proposed Action would not change the existing access to the site and the minimal increase in operations-related traffic would not impact the performance of any circulation system, including public transit, roadway, bicycle, or pedestrian facilities.

The Proposed Action would not include any design features that would affect traffic safety nor would it cause incompatible uses on local roads. No physical changes to the existing driveway are proposed and once operational the Proposed Action would generate a negligible increase in traffic due to maintenance staff commuting to and from the site. Impacts would be less than significant.

In addition, operation of the WWTF would not result in inadequate emergency access. No changes to the existing access driveway are proposed and emergency access to the site would continue to be provided from Bonita Place. Impacts would be less than significant.

The Parks and Recreation Element of the San Luis Obispo County General Plan identifies the proposed Salinas River Trail as a multi-use trail that would run along the Salinas River from Santa Margarita Lake to the Monterey County line. The proposed trail runs directly through the existing and proposed WWTF property. However, the Proposed Action would be constructed on the west side of the Proposed Action site, and the future trail is proposed further east, closer to the Salinas River. Impacts would be less than significant.

Optional Solar Component

Construction Impacts

Under this component of the Proposed Action, the proposed solar panels would be constructed concurrent with the construction of the WWTF and require an additional 10 construction workers and 5 trucks. All construction activities would occur on site and, given the temporary nature of the Proposed Action-added trips, construction would not affect the performance of the circulation system, including public transit, roadway, bicycle, or pedestrian facilities. In addition, this component of the Proposed Action would not propose any design features or incompatible uses that would substantially increase traffic hazards. Finally, construction of the solar component would not result in inadequate emergency access. Improvements would occur within the existing footprint of the WWTF and emergency access to the site would continue to be provided from Bonita Place. Emergency access to the work areas would be maintained throughout construction. Thus, impacts would be less than significant.

Operational Impacts

Once constructed, the optional solar component would be maintained as part of the regular maintenance of the overall WWTF and would not require any additional personnel beyond those associated with the WWTF. Operation of the solar component would not result in inadequate emergency access. No changes to the existing access driveway are proposed and emergency access to the site would continue to be provided from Bonita Place. In addition, the optional solar component would be maintained as part of the regular maintenance of the overall WWTF and would not require any additional personnel beyond those associated with the WWTF. There would be no changes to the access driveway or new design features that would substantially increase traffic hazards. Thus, impacts due to operation of the solar component would be less than significant.

Reclaimed Water System

Construction Impacts

The Proposed Action has the potential to create temporary lane closures, sidewalk closures, and bicycle lane closures during installation of pipelines within and across Mission Street, 20th Street, 19th Street, 16th Street, 14th Street, 12th Street, N Street, Monterey Road, River Road, Martinez Drive, Cross Canyon Road/Power Road, Magdalena Drive, and Indian Valley Road. The temporary lane closures may increase congestion during peak travel times due to a decrease in lane capacity. Any potential lane, driveway, and sidewalk closures would be coordinated with area residents and businesses to provide proper access. In addition, prior to undertaking construction activities for the Proposed Action, the District would secure all required permits from agencies with jurisdiction over the right-of-way along the proposed alignment. Private rights-of-way would be secured from property owners. Construction-related permits required by local agencies would be approved and issued prior to the start of construction, including traffic control plan approval, excavation permits, third-party crossing permits, and others as needed. With implementation of the traffic control plan, construction impacts would be less than significant.

Construction of the pipelines would not involve permanent alteration of existing roadways, nor would it require incompatible vehicular access. As discussed previously, the Proposed Action has the potential to create temporary lane closures, sidewalk closures, and bicycle lane closures during installation of pipelines, which may increase hazards to users of those facilities. Heavy machinery would also be used during construction of the Proposed Action; however, the District would secure all required permits from agencies with jurisdiction over the right-of-way along the proposed

alignment and would be required to prepare a traffic control plan to minimize impacts to area roadway, pedestrian, and bicycle facilities. Operation of all construction machinery would be conducted in accordance with the procedures set forth within the Proposed Action's traffic control plan as required by the County. With implementation of the traffic control plan, the Proposed Action's increase in potential hazards would be less than significant.

Construction activities related to pipeline installation within the unpaved access road areas would not affect normal circulation flow or emergency access, as those portions of the Proposed Action site are outside of public rights-of-way and emergency access routes. Construction along paved roadways within the public right-of-way could potentially result in temporary lane closures. However, any lane or driveway closures would be coordinated with the County and all local emergency service providers as part of the permit process. As part of the required traffic control plan, traffic control measures will be identified to maintain access in the case of an emergency. In addition, the District will notify the neighborhood regarding dates for construction, hours of construction activities, and access requirements for emergency vehicles and residents. Impacts would be less than significant.

Operational Impacts

Once constructed, the pipelines would be below the surface of the roadways and would require only occasional maintenance. The proposed reclaimed pipe system would be entirely underground or within the existing footprint of the WWTF. The Proposed Action would not introduce any new geometric design features or incompatible uses that would substantially increase hazards. In addition, the proposed pipe system would not impair or interfere with emergency access. Therefore, impacts would be less than significant.

No Action Alternative

Under the No Action Alternative, the proposed expansion of the Machado Wastewater Treatment Plant or the optional solar facility would not occur. As a result, the no action alternative would not introduce any additional construction or operation-related traffic activity to the Proposed Action area and would therefore not alter the traffic conditions of the Proposed Action area. As such, the no action alternative would not have any effects related to traffic or transportation.

3.12.3 Mitigation

Effects to traffic and transportation are anticipated to be short term and would not be adverse. As such, no mitigation is required for the Proposed Action.

3.13 Aesthetics

This section discusses potential impacts to visual resources resulting from the implementation of the Proposed Action. The analysis below is based on the review of existing resources and applicable laws regulations and guidelines.

3.13.1 Affected Environment

Existing Visual Character

The natural environment surrounding the Proposed Action area is rural in character and consists of open scenic vistas of undeveloped land. The unincorporated community of San Miguel is located approximately 7 miles north of the City of Paso Robles in a rural area of the County of San Luis Obispo where there is active ranching and agriculture. While these are working lands, there are generally open vistas and unobstructed views. San Miguel is located in northern San Luis Obispo County along the Salinas River. Geographically, the area is within the Salinas River Valley and bounded on the south by the City of Paso Robles, on the west and north by the Santa Lucia Mountain Range and Camp Roberts, and on the northeast by the Cholame Hills. The topography in the area is generally level to rolling, with low rising hills and shallow valleys. Larger hills and mountains form the backdrop. The common vegetative features of the region are the grass-covered valleys and hills with scattered oak trees. Oak woodlands are common, particularly in canyons and along streams on the west side of the community. Willows, sycamores, and cottonwoods can be seen in riparian corridors along the Salinas and Estrella rivers.

U.S. Highway 101 is the primary north-south transportation route that traverses the region. Commercial and residential development is visible throughout San Miguel and the City of Paso Robles from U.S. Highway 101. North of Paso Robles, residential development is more scattered and commercial uses are largely concentrated around the Wellsona Road intersection. The UPRR tracks run through the middle of San Miguel, equidistant from U.S. Highway 101 and the Salinas River (County of San Luis Obispo 2016b).

The current and expansion WWTF property is located close to the northern limits of San Miguel, San Luis Obispo County, California. The site is bordered by the UPRR to the west, the Salinas River to the east, residences on Benedict Street to the south, and open space to the north.

3.13.2 Environmental Consequences

Scenic Views

WWTF

The WWTF upgrade component of the Proposed Action would involve demolition of some existing structures to be replaced with new structures. However, the overall character of the WWTF would not be changed significantly and new structures would not block views from prominent locations. Views of the site are visible from U.S. Highway 101.

The Proposed Action would not cause a long-term alteration or degradation of the existing visible character and quality of the site and its surroundings and would not result in a permanent adverse change to physical, vegetative, or scenic resources. The Proposed Action would not have a substantial adverse effect on a scenic vista, nor would it result in substantial degradation of the existing visual character and quality of the site and its surroundings.

Construction-related visual effects, including raw earthwork and the presence of heavy machinery, would be temporary and short term. Thus, potential visual impacts resulting from the Proposed Action implementation would be less than significant.

Optional Solar Component

A scenic vista is a viewpoint that provides expansive views of a highly valued landscape for the benefit of the public. The District is proposing to install ground-mounted solar panels in the northern portion of the Proposed Action site, approximately 500 feet north of the aeration ponds. The installation of solar PV modules mounted on stationary fixed-tilt, ground-mounted racking, or single axis trackers is being considered by the District. The PV modules would be shorter than most single-story commercial buildings within the community. The Proposed Action would not substantially affect a scenic vista. Therefore, impacts would be less than significant.

Damage scenic resources

WWTF, Optional/Future Solar Component, and Reclaimed Water System

According to the California Scenic Highway Mapping System, there are no officially designated scenic highways in San Miguel. As such, the Proposed Action is not located adjacent to a state scenic highway. Therefore, there is no impact to scenic highways.

Damage Visual Character or Quality of Public Views

WWTF

The WWTF component of the Proposed Action would not block or alter the existing views of the rural character of the Proposed Action area. The existing viewscape would not be impeded or altered by structures or other Proposed Action elements. The views of the Proposed Action itself would be relatively limited as the Proposed Action consists mostly of improvements to the existing WWTF, which will be generally shielded from the public viewshed. Temporary visual impacts related to construction include the removal of roadside vegetation, presence of heavy machinery, materials stockpiling and storage, and construction-related safety signage and safety dividers. Construction activities at the Proposed Action site and at off-site staging areas would result in short-term temporary changes in the visual character of the Proposed Action area during and immediately following construction but would be minimized and restored. As a result, there would be a less-than-significant impact.

Optional/Future Solar Component

The solar site consists of a recently purchased parcel located adjacent to the existing WWTF. The solar component would not substantially degrade the existing visual character or quality of the site and its surroundings. As such, a less-than-significant impact would occur.

Optional/Future Reclaimed Water System

Implementation of the proposed pipelines would result in temporary visual impacts during construction; however, these impacts would be temporary, and upon completion of construction, would not be visible (for the pipeline installation) or would not result in substantial visible changes (for the lift station conversion). Given that construction activities would be temporary, and the site would be restored to its previous existing condition, the Proposed Action would not significantly degrade the existing visual character or quality of the site or its surroundings. Impacts would be less than significant.

New source of substantial light or glare

WWTF

The existing WWTF facilities are a source of light and glare in the Proposed Action area. The Proposed Action could contribute additional light and glare to the site with the development of additional facilities. Generation of new lighting would increase the potential for glare visible from U.S. Highway 101 and adjacent areas. The measures described in Mitigation Measure (MM) AES-1 should be used to reduce light and glare. Impacts would be reduced to less than significant with the implementation of mitigation.

Optional Solar Component

The reflection of sunlight from glass and metallic surfaces of the proposed solar panels is the primary potential producer of glare. The reflection of light is an optical phenomenon governed by the law of reflection. This law states that the direction of incoming light (incident ray) and the direction of the outgoing light reflected (reflected ray) make the same angle with respect to the surface normal, thus the angle of incidence equals the angle of reflection. The law of reflection shows how light responds when it contacts a truly spectral surface, like a mirror.

A solar panel differs from a truly spectral surface in that it has a microscopically irregular surface designed to trap the incident rays of sunlight with the intention of generating additional photon collision and energy production. Any incidental radiation, if not absorbed or transmitted, will be reflected. With the current advancements in PV technology, a typical untreated silicon solar cell absorbs 2/3 of the sunlight reaching the panel's surface, meaning only 1/3 of the sunlight reaching the surface of the solar panel will be reflected. Recent improvements in PV technology have led to even greater light absorption efficiency through the use of nano-engineered anti-reflective materials applied directly to the solar cells that allow the cells to absorb light from virtually the entire solar spectrum. The intent of solar technology is to increase efficiency by absorbing as much light as possible (which further reduces reflection and glare). Most solar glass sheets (the glass layer that covers the PV panels) are typically tempered glass that is treated with an anti-reflective or diffusion coating that further diffuses (scatters) the intensity of glare produced. This type of diffused glare loses intensity as the distance from the reflection source increases.

The Proposed Action could potentially include the use of trackers. Trackers are devices that orient the solar array perpendicular (surface normal) to the incident solar radiation, thereby maximizing solar cell efficiency and potential energy output. Tracking devices are capable of positioning the array so that the incident rays would be at or very near a surface normal (perpendicular angle). In these optimal conditions, when the sun is high in the sky, the law of reflection indicates that the reflected ray would be at an equally low angle and reflected in a direction toward the light source or back into the atmosphere away from terrestrial-based receptors. This also means that the potential for glare is further reduced. However, when the sun is low on the horizon (near dawn or dusk), the sun's angle in the sky is low; because the trackers are tilted toward the light source, the potential for fugitive glare on terrestrial-based receptors increases.

There are no sensitive visual receptors in the vicinity. Therefore, there are no sensitive receptors that could be affected by the fugitive glare from the spectral surfaces of the solar panels, or from nighttime lighting sources. Glare or light impacts would be less than significant.

Optional/Future Reclaimed Water System

The proposed pipelines would be placed below the ground surface within the WWTF and within existing street and would not result in a new source of lighting or glare. Therefore, no light or glare impacts would occur as a result of implementing the proposed pipelines. Impacts would be less than significant.

No Action

Under the No Action Alternative, no Proposed Action-related facilities would be developed and there would be no effects to visual resources within the analysis area.

3.13.3 Mitigation

Implementation of MM-AES-1 is required for the Proposed Action.

3.14 Human Health and Safety

This section discusses potential impacts to human health and safety resulting from the implementation of the Proposed Action. The analysis is based on the review of existing resources and applicable laws regulations and guidelines regarding hazardous materials.

3.14.1 Affected Environment

Regulatory Setting

Materials and waste may be considered hazardous if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode or generate vapors when mixed with water (reactivity). Hazardous material is defined in law as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.

Hazardous Materials Release Response Plans and Inventory Act of 1985

The Hazardous Materials Release Response Plans and Inventory Act, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a report that describes their facilities, inventories, emergency response plans and training programs. Hazardous materials are defined as raw or unused materials that are part of a process or manufacturing step. They are not considered to be hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous waste.

Other Laws, Regulations, and Programs

Various other state regulations have been enacted that affect hazardous waste management, including:

- Safe Drinking Water and Toxic enforcement Act of 1986 (Proposition 65), which requires labeling of substance known or suspected by the state to cause cancer
- California Government Code Section 65962.5, which requires the Office of Permit Assistance to compile a list of possible contaminated sites in the state
- Cal/OSHA, which requires construction project to implement safe hazardous material handling, transfer, storage, and maintenance

State and federal regulations also require that hazardous materials sites be identified and listed in public records. These lists are:

- Comprehensive Environmental Response, Compensation, and Liability Information System
- National Priorities List for Uncontrolled Hazardous Waste Sites
- Resource Conservation and Recovery Act
- California Superfund List of Active Annual Work Plan Sites
- Lists of state-registered underground and leaking underground storage tanks

San Luis Obispo County Regulations

The San Luis Obispo County Environmental Health Department has been appointed as the administering agency for the regulation of hazardous waste. Prior to initiation of construction activities, a business or entity is required to submit a Hazardous Materials Business Plan if the entity handles or stores hazardous materials/wastes at or above the following threshold quantities (County of San Luis Obispo EHS 2020):

- 55 gallons of liquid
- 200 cubic feet of gas
- 500 pounds of solid
- Radioactive materials (where an emergency plan is required by law)
- Extremely Hazardous Substances (at or above the threshold planning quantities)

San Luis Obispo County General Plan Safety Element

The Safety Element of the San Luis Obispo General Plan addresses a wide range of issues related to human safety and hazards, including hazardous wastes and materials and emergency preparedness. The overall intent of the Element is to protect persons and their property by identifying potential hazards within the community, minimizing these potential risks whenever possible, and providing for appropriate and timely response in cases of catastrophic events.

Policy S-13 – Pre-Fire Management: New development in fire hazard areas should be configured to minimize the potential for added danger with the implementation of the following measures:

Standard S-29: Identify high value and high-risk areas, including urban/wildland interface areas, and develop and implement mitigation efforts to reduce the threat of fire.

Standard S-30: Site homes near one another to the extent practicable to reduce the need for multiple response teams during fires. Require that the subdivision design be reviewed by fire safety personnel. Require the clustering of lots of buildings in high and very high fire hazard areas as appropriate. New developments in high and very high fire hazard areas should maintain open areas large enough to allow for control burns and other vegetation management programs.

Standard S-32: Require fire resistant material to be used for building construction in fire hazard areas.

Program S-33: Work with homeowners to improve fire safety and defensibility on developed parcels. Defensible space should be required around all structures in high and very high fire hazard areas.

San Miguel Community Plan

For Proposed Actions within 135 feet of the railroad, a Phase II environmental site assessment is required (County of San Luis Obispo 2016b). The purpose of a Phase II site assessment is to determine the presence, or absence of, petroleum products or hazardous waste in the subsurface of the site. Because the distance between the Proposed Action site and the railroad is just greater than 135 feet, a Phase II environmental site assessment is not expected to be required.

Environmental Setting

Fire Hazard

The Proposed Action site is located in an urbanized area primarily designated as a Non-Very High Fire Hazard Severity Zone. The areas directly north and east of the Proposed Action site, as well as areas west of Highway 101 (approximately 0.25 miles away), are characterized as High Fire Hazard Severity (CAL FIRE 2009).

Hazardous Material Sites

As discussed above, materials and waste may be considered hazardous if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode, or generate vapors when mixed with water (reactivity). Hazardous material is defined in law as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment. The WWTP site has not been listed by the U.S. EPA as a hazardous material site (EPA 2019). There are no sites in the treatment plant study area listed on the Cortese list (California Department of Toxic Substances Control Hazardous Waste and Substances Site List – Site Cleanup [Cortese List]; accessed May 2019). According to SWRCB's Geotracker database, there are no LUSTs in the Proposed Action area (SWRCB 2019). The San Miguel Wastewater Treatment Plant is in compliance with all federal, state, and local regulations for the storage, handling, transport, and use of hazardous materials.

3.14.2 Environmental Consequences

Proposed Action

Construction

Heavy equipment related to trenching, grading, and construction of the Proposed Action would require the use of fuel and petroleum-based lubricants and would require regular maintenance of equipment. Both the frequency of maintenance and the large volumes of fluids required to service the equipment increase the risk of accidental spillage. However, statutorily required standard measures, including the preparation and implementation of a SWPPP that meets the requirements of the Statewide General Construction Permit, will ensure that potential impacts from accidental leaks or spills are less than significant.

During any earth-moving operations (grading, trenching, etc.) within the existing facility areas, there is a possibility that unexpected hazardous materials could be encountered or unearthed. Hazardous materials in the construction area could create a risk to workers and the general public during excavation and transport. If contaminated soil is encountered and has to be removed from the construction area, it must be transported according to state and federal regulations and be replaced with imported soil approved for backfilling if necessary. In these cases, the contractor must comply with all applicable regulations. To minimize/eliminate fuel spillage, all construction vehicles would be adequately maintained and equipped. All equipment maintenance work, including refueling, would occur off site or within the designated construction staging area.

A variety of hazardous substances and wastes would be stored, used, and generated during construction of the Proposed Action. These would include fuels for machinery and vehicles, new and used motor oils, cleaning solvents, paints, and storage containers and applicators containing such materials. All chemicals that would be used during construction of the Proposed Action would be required to be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (22 CCR Division 4.5). Compliance with all applicable regulations regarding the transport, use, and disposal of hazardous materials would ensure that impacts would remain below a level of significance. Thus, impacts related to creation of a significant hazard to the public or the environment as a result of the construction of the Proposed Action would be less than significant.

Operational

Operation of the Proposed Action would involve the transport, storage, use, or disposal of hazardous materials including diesel fuel. The Proposed Action would be required to conform to local, state, and federal laws regarding the transport, storage, use, and disposal of hazardous materials. The District is required to comply with local laws and submit a Hazardous Materials Business Plan to the San Luis Obispo County Environmental Health Department. Based on compliance with existing standards and implementation of MM-HM-1 and MM-HM-2, operational impacts involving transport, storage, use or disposal would be less than significant with mitigation incorporated.

Accidental releases of hazardous materials used on site during operation of the wastewater treatment plant (i.e., fuels, lubricants, and disinfecting compounds such as chlorine) would have the potential to adversely affect on-site workers, public health, and/or the environment. Spillage of fuels or chemicals could result in a threat of fire or explosion or other situations that may pose a threat to human health and/or the environment. Releases could occur as a result of vehicular accidents, equipment malfunction, or improper storage. The San Luis Obispo County Department of Community Health, Environmental Division, requires a Hazardous Materials Business Plan for operation of the WWTF. The California Division of Occupational Safety and Health requires construction Proposed Actions to implement safe hazardous material handling, transfer, storage, and maintenance. Proposed Actions are required to have designated staging/maintenance areas, standard operating procedures, and emergency response planning for the use of hazardous materials on site. Based on compliance with existing standards and implementation of MM-HM-1 and MM-HM-2, impacts from accidental releases would be less than significant with mitigation incorporated.

Wildfire

The Proposed Action site is located in an urbanized area primarily designated as a Non-Very High Fire Hazard Severity Zone. The areas directly north and east of the Proposed Action site, as well as areas west of U.S. Highway

101 (approximately 0.25 miles), are characterized as High Fire Hazard Severity Zones (CAL FIRE 2007, 2009). The Salinas River may act as a buffer for wildland fires occurring to the east of the Proposed Action area. The proposed WWTF upgrade is expected to be manned 24 hours per day, 7 days per week and the closest fire station is approximately 5 minutes away from the Proposed Action site. MM-HM-3 through MM-HM-5 would be implemented to reduce the risk of loss, injury, or death from wildland fires. Impacts would be less than significant with implementation of mitigation.

Optional Solar Component

The Proposed Action would involve the use of some hazardous materials, such as diesel fuel, during construction. The Proposed Action would comply with all federal, state, and local regulations. Compliance with all federal and state regulations and requirements would ensure that the optional solar component of the Proposed Action would not pose a significant hazard to the public or the environment. The release of any spills to the environment would comply with existing standards and MM-HM-1 and MM-HM-2 would be implemented. Impacts would be less than significant with mitigation incorporated.

No Action Alternative

Under the No Action Alternative, the proposed expansion of the Machado Wastewater Treatment Plant and optional solar facility would not occur. As a result, no adverse impacts resulting from the generation, use, handling, storage or accidental release of hazardous materials would occur on the subject property from this alternative. In addition no impacts from wildfire would occur on the subject property from this alternative.

3.14.3 Mitigation

Implementation of MM-HM-1, MM-HM-2, MM-HM-3, MM-HM-4 and MM-HM-5 are required for the Proposed Action.

4.0 Cumulative Effects

The Council on Environmental Quality formally defines cumulative impacts as follows (40 CFR 1508.7):

the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

As required under NEPA and the regulations implementing NEPA, this chapter addresses cumulative effects on the environmental resources in the Cumulative Effects Study Area, which could result from the implementation of the Proposed Action and alternatives, past and present actions, and reasonably foreseeable future actions. The BLM NEPA Handbook (BLM 2008) states that the purpose of the cumulative effects analysis is to ensure that decision makers consider the full range of the consequences of the Proposed Action and No Action Alternative. Those resources identified for detailed analysis that would be directly or indirectly affected by the Proposed Action are analyzed below. If the actions under the Proposed Action and No Action Alternative have no direct or indirect effect on a resource, then the cumulative impacts on that resource are not addressed below.

The extent of each Cumulative Effects Study Area varies by environmental resource and is defined based on the geographic or biological limits of those resources and the extent in which the environmental effect from the Proposed Action would be reasonably detected. To simplify and avoid having only slightly different Cumulative Effects Study Areas for a number of resources, several environmental topics carried forward for the cumulative effects analysis have the same Cumulative Effects Study Area boundaries. Unless described otherwise for a specific resource, the Cumulative Effects Study Area is defined as approximately 5 miles from the Proposed Action, located largely on public lands, as information regarding development on private lands in nearby cities was not readily available.

Past, present, and reasonably foreseeable future Proposed Actions included in the CESA are based on information available at the time this Environmental Assessment was written. Past actions are considered those that have occurred within the past 50 years. Present actions are considered those occurring at the time of this evaluation. Future actions are those that are in planning stages with a reasonable expectation of occurring over the next 20 years. Reasonably foreseeable future Proposed Actions and activities on BLM lands were assessed for having a potential cumulative impact with the Proposed and Connected Actions. No reasonably foreseeable future development is currently being considered at the project site. Continued growth envisioned in the City's General Plan could still occur in areas surrounding the project site.

4.1 Land Use/Land Ownership

As described in Section 3.2, the Proposed Action would not result in impacts to general land use planning and therefore, it would not contribute to any cumulative impacts for the City of San Miguel.

4.2 Floodplains

As described in Section 3.2, the Proposed Action would not result in impacts to floodplains and therefore, it would not contribute to any cumulative impacts to the floodplain.

4.3 Wetlands

As described in Section 3.3, the Proposed Action would not result in impacts to wetlands or Waters of the United States, and therefore it would not contribute to any cumulative impacts to these resources.

4.4 Cultural Resources

As described in Section 3.4, the Proposed Action would not result in impacts to cultural or archaeological resources and therefore, it would not contribute to any cumulative impacts to these resources. Nonetheless, inadvertent discoveries of cultural resources, including archaeological resources, human remains, or paleontological resources could occur during future construction of the Proposed Action, resulting in a potential direct long-term adverse impact. The Proposed Action would be subject to Section 106 of the NHPA as amended (36 CFR 800), NAGPRA (25 USC 3001 et seq.), and the Archaeological Resources Protection Act of 1979 (16 USC 470aa-mm). In addition, adoption of mitigation measures MM-CUL-1 through MM-CUL-5, would be implemented to ensure impacts to cultural and paleontological resources would not be significant. Therefore, with implementation of the proposed measures, the Proposed Action would not contribute to any cumulative impact to cultural resources.

4.5 Biological Resources

The Proposed Action would not result in impacts to sensitive natural communities, or native natural communities of any kind, as described in Section 3.5. It would also not result in adverse effects to general fish and wildlife, except potentially to native nesting birds, which are protected under MBTA. However, implementation of MM BIO-4 would ensure that the Proposed Action does not adversely affect this resource. The Proposed Action is not likely to adversely affect any plant species listed under ESA. Implementation of MM BIO-5 (updated special-status plant surveys) will further ensure the Proposed Action does not adversely affect this resource, and therefore would not contribute to any cumulative impact to listed plant species. Although the Proposed Action may affect San Joaquin kit fox or least Bell's vireo, it incorporates measures to avoid affects to these species, including MM BIO-1 (biological monitoring), MM BIO-2 (worker environmental awareness programs), MM BIO-3 (additional construction measures), MM BIO-4 (pre-construction nesting bird survey and nest avoidance), MM BIO-6 (least Bell's vireo protocol surveys), and MM BIO-7 (San Joaquin kit fox survey and kit fox avoidance). In addition, MM BIO-7 (San Joaquin kit fox habitat mitigation) will ensure habitat mitigation will occur at a ratio sufficient to compensate for any loss of habitat for San Joaquin kit fox. Therefore, with implementation of the proposed measures, the Proposed Action would not contribute to any cumulative impact to biological resources.

4.6 Water Resources

As described in Section 3.6, the WWTF and solar components of the Proposed Action could result in increased runoff and additional sources of polluted runoff that would be potentially significant. However, since the Proposed Action would be developed in accordance with MM-HYD-2a, which would ensure that LID BMP features are incorporated into the Proposed Action to ensure that an 85th percentile 24-hour rainfall event is treated and retained on site, and MM-HYD-2b, which would ensure that the Proposed Action does not discharge stormwater runoff generated by a 95th percentile, 24-hour storm event, impacts from runoff would be less than significant. The Proposed Action would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, it would not contribute to any cumulative impacts to water resources.

4.7 Socioeconomics and Environmental Justice

As described in Section 3.7, the Proposed Action would not result in disproportionately high and adverse impacts to human health or the environment in the project vicinity. Therefore, the proposed action would not contribute to any cumulative impacts to the San Miguel community.

4.8 Air Quality

As described in Section 3.8, the Proposed Action would not result in impacts to air quality, and therefore it would not contribute to any cumulative impacts to air quality at the project site.

4.9 Noise

As described in Section 3.9, the Proposed Action would not result in impacts to ambient noise levels at the project site, and therefore it would not contribute to any cumulative impacts related to noise.

4.10 Transportation

Temporary increases in traffic would occur during the construction phase of the Proposed Action. However, since traffic increases are anticipated to be short term and would not be adverse, mitigation measures for increased traffic are not required. Therefore, as described in section 3.10, the Proposed Action would not contribute to cumulative impacts on transportation.

4.11 Aesthetics

As described in Section 3.6, the Proposed Action would not result in impacts to visual resources at the project site, and therefore it would not contribute to any cumulative impacts to scenic views and resources.

4.12 Human Health and Safety

As described in Section 3.11, the Proposed Action would not result in impacts to the human health and safety in the project vicinity, and therefore it would not contribute to any cumulative impacts.

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5.0 Summary of Mitigation

Land Use

MM-LU-1 Implementation of a Conditional Use Permit with the County of San Luis Obispo.

Biological Resources

MM BIO-1 **Biological Monitoring.** Prior to initiation of any construction activities, the applicant shall contract with a qualified biologist to monitor construction activities. The biologists' qualifications shall be submitted to the County Planning and Building Department for approval. The biological monitor shall be present during initial ground disturbances within the existing WWTF, the proposed expansion area, or along the proposed water pipeline within 100 feet of the Salinas River crossing. After completion of initial ground disturbances, the biological monitor shall conduct site inspections at least once per week to ensure that all prescribed avoidance and minimization measures are being fully implemented.

MM BIO-2 **Worker Environmental Awareness Program (WEAP).** Prior to initiation of construction activities (including staging and mobilization), all personnel associated with Proposed Action construction shall attend WEAP training, conducted by a County-approved biologist, to aid workers in recognizing special-status resources that may occur in the Proposed Action area. The specifics of this program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction of the Proposed Action. All employees shall sign a form provided by the trainer indicating they have attended the WEAP and understand the information presented to them. The form shall be submitted to the County to document compliance.

MM BIO-3 **Additional Construction Measures.** The applicant shall implement several additional construction-related measures protecting biological resources, as outlined in the San Miguel Community Plan:

- All vehicle maintenance/fueling/staging shall occur not less than 100 feet from any riparian habitat or water body. Suitable containment procedures shall be implemented to prevent spills. A minimum of one spill kit shall be available at each work location near riparian habitat or water bodies.
- At the end of each work day, excavations shall be secured with a cover or a ramp provided to prevent wildlife entrapment.
- All trenches, pipes, culverts or similar structures shall be inspected for animals prior to burying, capping, moving, or filling.
- If at any time during construction of the Proposed Action an Endangered/Threatened species enters the construction site or otherwise may be impacted by the Proposed Action, all Proposed

Action activities shall cease. A California Department of Fish and Wildlife (CDFW)/U.S. Fish and Wildlife Service (USFWS) approved biologist shall document the occurrence and consult with the CDFW and/or USFWS as appropriate.

MM BIO-4 **Pre-Construction Nesting Bird Survey and Nest Avoidance.** For construction activities occurring during the nesting season (generally February 1 to September 15), surveys for nesting birds covered by the California Fish and Game Code and the Migratory Bird Treaty Act shall be conducted by a County-approved biologist no more than 14 days prior to vegetation removal. Prior to the surveys, the survey scope and the name, qualifications, and contact information for the surveying biologist must be submitted to the County Planning and Development Department. Surveys shall be conducted during the time when birds are active and shall be sufficient to reliably conclude presence/absence. The surveys shall include the entire Proposed Action disturbance area plus a 500-foot buffer around the site. If active nests are located, all construction work shall be conducted outside a buffer zone from the nest to be determined by the qualified biologist. The buffer shall be a minimum of 50 feet for non-raptor bird species and at least 300 feet for raptor species. Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. The buffer area(s) shall be closed to all construction personnel and equipment until the adults and young are no longer reliant on the nest site. A County-approved biologist shall confirm that breeding/nesting is completed and young have fledged prior to removal of the buffer. The results of the pre-construction survey shall be submitted to the County prior to construction, and construction shall not commence without authorization from the County.

MM BIO-5 **Updated Special-Status Plant Surveys.** Prior to ground disturbances associated with the optional solar component, a qualified botanist shall conduct botanical surveys in accordance with U.S. Fish and Wildlife, California Department of Fish and Wildlife, and California Native Plant Society (CNPS) guidelines. Surveys shall be seasonally timed so that all potentially occurring plant species are in identifiable condition during at least one survey. Potentially occurring plant species shall be determined based on a review of information in the San Miguel Community Plan (County of San Luis Obispo 2016b) and updated queries of the California Natural Diversity Database (<https://wildlife.ca.gov/Data/CNDDDB>) and the CNPS Rare Plant Inventory (<https://www.cnps.org/rare-plants/cnps-inventory-of-rare-plants>). In addition to the species mentioned in the San Miguel Community Plan, the surveys should target any potentially occurring species that are listed, candidates for listing, or proposed for listing under the California Endangered Species Act or the federal Endangered Species Act and any species with a California Rare Plant Rank of 1 or 2 in the CNPS Rare Plant Inventory.

Any special-status plants identified during the survey shall be mapped onto a site-specific aerial photograph and topographic map. Survey results shall be submitted to the County Planning and Building Department for approval. If federal-listed, state-listed, or California Rare Plant Rank 1B species are found during special-status plant surveys then the Proposed Action shall be re-designed to avoid impacting these plant species, if feasible. Rare plant occurrences that are not within the immediate disturbance footprint but are located within 50 feet of disturbance limits of construction shall have bright orange protective fencing installed at least 30 feet beyond their extent, or another distance as approved by a County-approved biologist, to protect them from direct and indirect impacts. A restoration plan shall be prepared and submitted to the County as well as

other state or federal agencies as appropriate (for instance, if a state-listed plant is involved). The restoration plan shall include, at a minimum, the following components:

- Description of the Proposed Action/impact site (i.e., location, responsible parties, areas to be impacted by habitat type)
- Goal(s) of the compensatory mitigation Proposed Action [type(s) and area(s) of habitat to be established, restored, enhanced, and/or preserved; specific functions and values of habitat type(s) to be established, restored, enhanced, and/or preserved]
- Description of the proposed compensatory mitigation site (location and size, ownership status, existing functions and values)
- Implementation plan for the compensatory mitigation site (rationale for expecting implementation success, responsible parties, schedule, site preparation, planting plan)
- Maintenance activities during the monitoring period, including weed removal as appropriate (activities, responsible parties, schedule)
- Monitoring plan for the compensatory mitigation site, including no less than quarterly monitoring for the first year (performance standards, target functions and values, target acreages to be established, restored, enhanced, and/or preserved, annual monitoring reports)
- Success criteria based on the goals and measurable objectives; said criteria to be, at a minimum, at least 80% survival of container plants and 30% relative cover by vegetation type
- An adaptive management program and remedial measures to address any shortcomings in meeting success criteria
- Notification of completion of compensatory mitigation and agency confirmation
- Contingency measures (initiating procedures, alternative locations for contingency compensatory mitigation, funding mechanism)

MM BIO-6 **Least Bell's Vireo Protocol Surveys.** Prior to issuance of a construction permit for any Proposed Action component requiring construction activities within 800 feet of riparian vegetation associated with the Salinas River, a qualified ornithologist shall conduct surveys for least Bell's vireo in accordance with the Least Bell's Vireo Survey Guidelines (USFWS 2001). The surveys should be conducted during the appropriate season and in accordance with all requirements of the protocol. If through consultation with the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS), it is determined that protocol surveys are not required, said consultation shall be documented prior to issuance of any construction permits. If surveys are required, and least Bell's vireo are detected during the surveys, the applicant shall consult further with USFWS and CDFW to determine appropriate measures to avoid impacts to least Bell's vireo. Upon completion of the Proposed Action, the biological monitor shall prepare a Final Compliance Report documenting all compliance activities implemented for the Proposed Action, including the pre-construction survey results. The report shall be submitted to the County within 30 days of completion of the Proposed Action.

MM BIO-7 **San Joaquin Kit Fox Compensatory Habitat Mitigation.** The applicant shall mitigate for the loss of San Joaquin kit fox habitat in the proposed expansion area in accordance with the San Miguel Community Plan and in coordination with the County of San Luis Obispo. The applicant shall

mitigate for the loss of any non-native grassland, agricultural, or disturbed lands in the proposed expansion area at a ratio agreed upon through County coordination.

MM BIO-8 **Pre-Construction San Joaquin Kit Fox Survey and Kit Fox Avoidance.** Prior to initiation of construction activities, a qualified biologist shall conduct a survey for San Joaquin kit fox dens and sign in suitable habitats within 200 feet of the expansion and the proposed water pipeline alignment. Suitable habitats include native and non-native grasslands and associated scrub, oak savannah adjacent to grasslands, lands that are dryland farmed, and ruderal lands associated with the above-described habitats. The pedestrian survey shall include parallel transects that provide full visual coverage of the survey area, with transects spaced between 30 and 100 feet, depending on vegetation height and density. Dens identified during the survey shall be avoided in accordance with the Standardized Recommendations and for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance (USFWS 2011). If any potential San Joaquin kit fox dens are identified during the survey, a 50-foot no disturbance buffer shall be established and marked with flagged stakes. If a known den, one confirmed to be currently or previously occupied by a San Joaquin kit fox, is identified during surveys, a 100-foot no disturbance buffer shall be established and marked with flagged stakes. If a natal/pupping den is identified, the qualified biologist shall contact the U.S. Fish and Wildlife Service (USFWS). Definitions for “potential,” “known,” and “natal” dens are included in Appendix II of the San Joaquin Kit Fox Survey Protocol for the Northern Range (USFWS 1999). If it is not feasible to avoid a potential den, measures may be implemented to monitor the den to determine whether it is occupied. Dens must be monitored for a minimum of 3 days using tracking medium or motion-sensor camera to determine whether it is occupied. If kit fox is not detected, the den may be excavated using hand tools, and the no-disturbance buffer may be removed. If a den is determined to be occupied, kit fox may not be excluded, the den may not be excavated and backfilled, and a minimum 100-foot no disturbance buffer must remain in place.

Additional measures shall be implemented during construction, regardless of whether San Joaquin kit foxes are identified during surveys, to ensure impacts to San Joaquin kit foxes are minimized and avoided, as outlined in USFWS 2011:

- Proposed Action-related vehicles should observe a daytime speed limit of 20 mph throughout the site in all Proposed Action areas, except on county roads and state and federal highways.
- To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a Proposed Action, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals.
- All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until USFWS has been consulted. If necessary, and under the direct supervision of the

biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.

- All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from a construction or Proposed Action site.
- No firearms shall be allowed on the Proposed Action site.
- No pets, such as dogs or cats, shall be permitted on the Proposed Action site.
- Use of rodenticides and herbicides in Proposed Action areas shall be restricted.
- A representative shall be appointed by the Proposed Action proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured, or entrapped kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to USFWS.
- An employee education program should be conducted for this Proposed Action if subsequent to surveys there are anticipated impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and agency personnel involved in the Proposed Action. The program should include the following: a description of the San Joaquin kit fox and its habitat needs, a report of the occurrence of kit fox in the Proposed Action area, an explanation of the status of the species and its protection under the Endangered Species Act, and a list of measures being taken to reduce impacts to the species during Proposed Action construction and implementation. A fact sheet conveying this information should be prepared for distribution to the previously referenced people and anyone else who may enter the Proposed Action site.
- In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape or USFWS should be contacted for guidance.
- Any contractor, employee, or military or agency personnel who is responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the California Department of Fish and Wildlife immediately in the case of a dead, injured or entrapped kit fox.
- The Sacramento Fish and Wildlife Office and California Department of Fish and Wildlife shall be notified in writing within 3 working days of the accidental death or injury to a San Joaquin kit fox during Proposed Action related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information.
- New sightings of kit fox shall be reported to the California Natural Diversity Database. A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the USFWS at:

Endangered Species Division
2800 Cottage Way, Suite W2605
Sacramento, California 95825-1846
916.414.6620 or 916. 414.6600

Cultural Resources

- MM-CR-1 **Cultural Resource Monitoring and Inadvertent Discovery Plan.** Impacts to cultural resources should be minimized through implementation of pre- and post- construction tasks. Tasks pertaining to cultural resources include the development of a cultural resource inadvertent discovery plan (Plan). The purpose of the Plan is to outline a program of treatment and mitigation in the case of an inadvertent discovery of cultural resources during ground-disturbing phases (including but not limited to preconstruction site mobilization, grubbing, construction ground disturbance, construction grading, trenching, and landscaping) and to provide for the proper identification, evaluation, treatment, and protection of any cultural resources during the construction of the Project. This Plan should define the process to be followed for the identification and management of cultural resources in the Project area during construction. Existence of and importance of adherence to this Plan should be stated on all construction plans.
- MM-CR-2 **Workers Environmental Awareness Program (WEAP) Training.** All construction personnel and monitors who are not trained archaeologists should be briefed regarding unanticipated discoveries prior to the start of construction activities. A basic presentation shall be prepared and presented by a qualified archaeologist to inform all personnel working on the Project about the archaeological sensitivity of the area. The purpose of the WEAP training is to provide specific details on the kinds of archaeological materials that may be identified during construction of the Project and explain the importance of and legal basis for the protection of significant archaeological resources. Each worker shall also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the on-call archaeologist and if appropriate, Tribal representative. Necessity of training attendance should be stated on all construction plans.
- MM-CR-3 **Archaeological Construction Monitoring.** In consideration of the general sensitivity of the project site for cultural resources, a qualified archaeologist should be retained to conduct spot monitoring as well as on call response in the case of an inadvertent discovery of archaeological resources. A qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, should oversee and adjust monitoring efforts as needed (increase, decrease, or discontinue spot monitoring frequency) based on the observed potential for construction activities to encounter cultural deposits. The archaeologist should be responsible for maintaining monitoring logs. Following the completion of construction, the qualified archaeologist should provide an archaeological monitoring report to the San Miguel Community Services District and the Central Coast Information Center with the results of the cultural monitoring program.
- MM-CR-4 **Inadvertent Discovery of Archaeological Resources.** In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the project, all construction work occurring within 100 feet of the find should immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under the California Environmental Quality Act (14 CCR 15064.5[f]; California Public Resources Code, Section 21082), the archaeologist may simply

record the find and allow work to continue. If the discovery proves significant under the California Environmental Quality Act, additional work, such as preparation of an archaeological treatment plan, testing, or data recovery, may be warranted. If the discovery is Native American in nature, consultation with and/or monitoring by a Tribal representative may be necessary.

If a discovery consists of possible human remains, the San Luis Obispo County Coroner shall be contacted immediately as well as the San Miguel Community Services District project representative. If the Coroner determines that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission (NAHC), who will provide the name and contact information for the most likely descendant (MLD). Treatment of the discovery shall be decided in consultation with the MLD provided by the NAHC. Additionally, a Tribal representative shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the San Miguel Community Services District project representative grants authorization.

MM-CUL-5 **Inadvertent Discovery of Human Remains.** In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the Project site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

Water Quality

MM-HYD-1 **Frac-Out Contingency Plan.** The San Miguel Community Services District (District) or their contractor shall store pertinent materials on site to quickly contain potential frac-outs. At the entry or exit of the drill and for the duration of the drilling activity, the District or their contractor shall maintain a supply of sediment barriers (e.g., weed-free straw bales and silt fence), plastic sheeting, shovels and buckets, mud pumps and additional hose, mud storage tanks, and a vacuum truck. In addition, the District may store sandbags, floating booms or silt curtains, plywood, a small backhoe to dig sumps, and corrugated pipe.

In the event of a frac-out, the release shall be assessed immediately, and the District or their contractor shall take the following steps:

- Initiate immediate suspension of the drilling operation.
- Contain the frac-out with supplies and materials as appropriate.
- Verify that the drilling lubricant would not enter a jurisdictional water feature.

- Assess the containment structure and determine whether additional supplies and materials are needed to prevent the spread of surfaced drilling lubricant.
- Determine whether cleanup of the frac-out material is needed.

If a frac-out is identified in a jurisdictional water feature or other sensitive resource area, the following additional steps shall be taken:

- The District or their contractor shall notify the appropriate agency authorities with jurisdiction (i.e., the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board).
- The drill angle shall be increased to move below the frac-out and to reduce the amount of drilling lubricant reaching the surface. The current drill profile shall be evaluated, and drill pressures and pump volume rates shall be adjusted, as needed.
- If standing water is present, hand-placed containment, silt curtains, or other containment techniques for water releases shall be deployed if necessary. To the extent feasible, surface releases of excess drilling lubricant shall be held in a contained area and removed using small collection sumps with portable pumps and hoses, and without undue disturbance to the banks and bed of the water feature.
- Frac-out cleanup shall be conducted in a manner that avoids damage to existing and adjacent vegetation. Soils that come in contact with drilling lubricant shall be removed to the extent feasible without causing excessive loss of topsoil or vegetation.

Once the frac-out is contained, drilling may resume upon approval from the appropriate agency officials and District representatives. Frac-out material shall be collected and stored in containers until it can be reused or disposed of in an approved disposal facility.

MM-HYD-2a **Stormwater Quality.** Prior to issuance of grading permits, the San Miguel Community Services District or their contractor shall prepare a Stormwater Management Plan in accordance with the Central Coast Regional Water Quality Control Board Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region (RWQCB 2013). The Stormwater Management Plan shall demonstrate that post-construction Low Impact Development (LID) Best Management Practices (BMPs) are incorporated into the proposed project design and that these features are designed to effectively retain runoff generated by the 85th percentile, 24-hour storm event, as determined by local rainfall data. The LID BMPs shall also be designed to effectively reduce and/or eliminate water pollution caused by runoff flowing from the developed site. The post-construction LID retention BMPs (harvesting and use, infiltration, and evapotranspiration) shall be used unless it can be demonstrated that those BMPs are infeasible. The project shall follow the LID hierarchy of infiltration, harvest and use, evapotranspiration, biofiltration, and non-retention-based treatment systems. These LID features shall be sized and designed in accordance with the specifications outlined in the Post-Construction Stormwater Management Requirements document.

MM-HYD-2b **Runoff Retention.** Prior to issuance of grading permits, the San Miguel Community Services District or their contractor shall design the project to meet the runoff retention requirements of the Central

Coast Regional Water Quality Control Board Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region (RWQCB 2013). The project shall be designed to prevent off-site discharge from events up to the 95th percentile 24-hour rainfall event, as determined from local rainfall data. Compliance shall be achieved by optimizing infiltration. If infiltration is infeasible or cannot achieve full compliance, the remaining runoff amount shall be retained on site via storage, rainwater harvesting, and/or evapotranspiration. Runoff retention specifications shall be sized and designed in accordance with the specifications outlined in the Post-Construction Stormwater Management Requirements document.

Noise

MM-NOI-1 **Construction Noise Reduction.** The Santa Margarita Water District and/or its construction contractor shall comply with the following measures during construction:

- Construction activities shall not occur between the hours of 8:00 p.m. and 7:00 a.m. Monday through Saturday, or on Sundays or national holidays. In the event that construction is required to extend beyond these times, extended hours permits shall be required.
- Pumps and associated equipment (e.g., portable generators) shall be situated and configured to minimize noise at nearby noise-sensitive receivers.
- Where possible, staging of construction equipment shall be situated at least 45 feet from noise- or vibration-sensitive land uses.
- All noise-producing equipment and vehicles using internal combustion engines shall be equipped with mufflers; air-inlet silencers where appropriate; and any other shrouds, shields, or other noise-reducing features in good operating condition that meet or exceed original factory specification. Mobile or fixed “package” equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.
- All mobile or fixed noise-producing equipment used for the project that are regulated for noise output by a local, state, or federal agency shall be in compliance with regulations.
- Idling equipment shall be kept to a minimum and moved as far as practicable from noise-sensitive land uses.
- Electrically powered equipment shall be used instead of pneumatic or internal combustion powered equipment, where feasible.
- Mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be used for safety warning purposes only.

MM-NOI-2: **Notification.** Effective communication with local residents shall be maintained prior to and during construction. Specifically, San Miguel Wastewater Treatment Plant or its designee shall inform local residents of the schedule, duration, and progress of the construction. Additionally, residents shall be provided contact information for noise- or vibration-related complaints.

Aesthetics

- MM-AES-1 Exterior building materials shall be of a non-glare and non-reflective finish. Windows shall be designed and oriented to minimize glare onto adjacent properties. Illumination from within buildings shall be controlled by window design, location, and tinting. Window glass shall be designed to control spillage of light from interior spaces.

Human Health and Safety

- HM-1 Prior to initiation of construction activities, the Contractor shall prepare and submit to the County of San Luis Obispo Department of Environmental Health a contingency plan for handling hazardous materials, whether found or introduced on-site during construction. This plan shall include standard construction measures as specified in local, state and federal regulations for hazardous materials, removal of on-site debris, and confirmation of presence of pipelines on-site. At a minimum, the following measures shall be included in the contingency plan:

- If contaminated soils or other hazardous materials are encountered during any soil moving operation during construction (e.g., trenching, excavation, grading), construction shall be halted and the Hazardous Material Control Plan (HMCP) implemented.
- Instruct workers on recognition and reporting of materials that may be hazardous.
- Minimize delays by continuing performance of the work in areas not affected by hazardous materials operations.
- Identify and contact subcontractors and licensed personnel qualified to undertake storage, removal, transportation, disposal, and other remedial work required by, and in accordance with, laws and regulations.
- Forward to engineer, copies of reports, permits, receipts, and other documentation related to remedial work.
- Notify such agencies as are required to be notified by laws and regulations within the time stipulated by such laws and regulations.
- File requests for adjustments to contract time and contract price due to the finding of hazardous materials in the work site in accordance with conditions of contract.

- HM-2 Prior to operation, the Contractor shall complete and submit a Hazardous Materials Business Plan to the SMCSD staff or their designee, and the County of San Luis Obispo Department of Environmental Health. As a component of the Hazardous Materials Business Plan, detailed procedures for handling and storage of hazardous materials used on site, and response to emergency or accidental releases of hazardous materials used on site shall be included.

- HM-3 Any structures shall be built to the Uniform Fire Code adopted by the County of San Luis Obispo. Any structures within high and very high fire areas shall contain a “defensible space” that provides a safety zone for firefighters, structures and the public.

- HM-4 During construction, staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a fire break.
- HM-5 Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.

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6.0 Coordination, Consultation and Correspondence

A number of agencies and organizations were contacted during the preparation of this EA, including but not limited to: United States Department of Agriculture and United State Department of Fish and Wildlife Services and National Marine Fisheries Service.

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8.0 List of Preparers

Table X. Resource Specialists

Name	Title	Proposed Action Expertise

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Appendix A

Wastewater Treatment Facility Upgrade/Expansion
Preliminary Engineering Report (Engineering Report)
Monsoon Consultants 2019

Appendix B

Hydrologic and Hydraulic Analysis Monsoon
Consultants 2021

Appendix C

Cultural Resources Investigation

Appendix D

Botanical Survey Report

Appendix E

Biological Assessment

Appendix F

San Joaquin Kit Fox Habitat Assessment Memorandum

Appendix G

Air Quality Memorandum