

**PARSONS**

**Initial Study/Mitigated Negative Declaration  
for the  
Proposed Upgrade of the  
City of Redlands  
Wastewater Treatment Plant  
Redlands, California**

**City of Redlands  
Municipal Utilities and Engineering Department  
City of Redlands  
35 Cajon Street, Suite 15A  
Redlands, CA 92373**

**November 2021**

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**ACRONYMS AND ABBREVIATIONS**

AB	Assembly Bill
ADWF	annual dry weather flow
AICP	American Institute of Certified Planners
AQCR	Air Quality Control Region
ARB	California Air Resources Board
BACT	Best Available Control Technology
BCEE	Board Certified Environmental Engineer
bgs	below ground surface
BUOW	burrowing owl
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAS	conventional activated sludge
CalEEMod	California Emissions Estimator Model
CALFIRE	California Department of Forestry and Fire Resources
CBC	California Building Code
CCAA	California Clean Air Act
CCH	Consortium of California Herberia
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CH <sub>4</sub>	methane
City	City of Redlands
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	CO <sub>2</sub> equivalent
CRHR	California Register of Historic Resources
CSS	coastal sage scrub
DAFT	dissolved air flotation thickener
dB	decibel
dBA	A-weighted decibel
DBCP	1,2-dibromo-3-chloropropane
DLR	device level ring
DOGGR	California Department of Oil, Gas, and Geothermal Resources
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EO	Executive Order
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
EVPI	Public/Institutional
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FEMA	Federal Emergency Management Agency
FR	Federal Register
FTA	Federal Transit Authority
GHG	greenhouse gas
GIS	geographic information system
GWP	global warming potential
H <sub>2</sub> S	hydrogen sulfide
HCP	Habitat Conservation Plan
HP	horsepower
HVAC	heating, ventilation, and air conditioning
I&C	instrument and control
I-10	Interstate 10
IPaC	Information Planning and Consultation
IS	Initial Study

kWh	kilowatt hour
LCFS	Low carbon fuel standard
LUST	leaking underground storage tank
MBR	membrane bioreactor
MBTA	Migratory Bird Treaty Act
MCC	motor control center
MDT	mass daily threshold
mg/L	milligrams per liter
MGD	million gallons per day
mL	milliliter
MLD	most likely descendant
MLSS	mixed liquor suspended solids
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zone
MTCO <sub>2</sub> e	metric tons of carbon dioxide equivalent
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEC	National Electrical Code
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NO <sub>2</sub>	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NO <sub>x</sub>	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NSR	New Source Review
NTU	nephelometric turbidity units
O <sub>3</sub>	ozone
PCE	tetrachloroethene
P&IDs	pipng and instrumentation diagrams
PLC	programmable logic controller
PM	particulate matter
PM <sub>10</sub>	particulate matter less than or equal to 10 microns in aerodynamic diameter (coarse particulates)
PM <sub>2.5</sub>	particulate matter less than or equal to 2.5 microns in aerodynamic diameter (fine particulates)
ppm	parts per million
PRC	Public Resources Code
RAS	return activated sludge
RCRA	Resource Conservation and Recovery Act
RCSP	Redlands Community Sustainability Plan
ROI	Region of Influence
RPA	Registered Professional Archaeologist
RPS	Renewables Portfolio Standard
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCADA	Supervisory Control and Data Acquisition
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCG	Southern California Gas Company
SDWA	Safe Drinking Water Act
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SMBMI	San Manuel Band of Mission Indians
SR	State Route

## Initial Study/Mitigated Negative Declaration

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SRF	State Revolving Fund
SSA	Sole Source Aquifer
SWRCB	State Water Resources Control Board
TCE	trichloroethene
TIN	total inorganic nitrogen
tpy	tons per year
TWAS	thickened waste activated sludge
USDA	United States Department of Agriculture

USFWS	United States Fish and Wildlife Service
USGS	U.S. Geologic Survey
UST	underground storage tank
VdB	velocity level in decibels
VOC	volatile organic compounds
WAS	waste activated sludge
WDR	Waste Discharge Requirement
WWTP	Wastewater Treatment Plant

## 1.0 PROJECT AND AGENCY INFORMATION

The City of Redlands (City) proposes the upgrade and modernization of its Wastewater Treatment Plant (WWTP), located at the northwestern section of Redlands. The proposed upgrades include improvements to the headworks, clarifiers, peak storage ponds, pump stations, membrane bioreactor (MBR) system, aeration basins and blowers, supernatant ponds, thickening system, digestion system, dewatering system, electrical system, redundant pipelines, landscaping, and other plant systems. However, there would be no expansion of the WWTP’s existing design capacity of 9.5 million gallons per day (MGD) as a result of this upgrade.

The California Environmental Quality Act (CEQA), Public Resources Code (PRC) §§ 21000 *et seq.*, requires that the environmental implications of an action by a local agency be analyzed and evaluated before project approval. This Initial Study has been prepared in accordance with Section 15365 of CEQA Guidelines (14 Cal. Code Reg. 1500 *et seq.*). This Initial Study (IS) provides the assessment for a determination of whether the project may have a significant effect on the environment.

### 1.1 Project Title and Lead Agency

<b>Project Title</b>	Upgrade of the City of Redlands Wastewater Treatment Plant
<b>Lead Agency Name and Address</b>	City of Redlands Municipal Utilities and Engineering Department 35 Cajon Street, Suite 15A Redlands, California 92373
<b>Contact Person and Phone Number</b>	Mr. Goutam K. Dobey, PE Engineering Manager (909) 798-7584, Ext. 2
<b>Project Sponsor’s Name and Address</b>	City of Redlands Municipal Utilities and Engineering Department 35 Cajon Street, Suite 15A Redlands, California 92373
<b>General Plan Designation</b>	Public/Institutional and Linear Park
<b>Zoning</b>	Open Space and Public/Institutional
<b>State Clearinghouse Number</b>	2021100198

### 1.2 Project Location

Redlands is located at the base of the San Bernardino Mountains in San Bernardino County, 60 miles northeast of Los Angeles and 45 miles west of Palm Springs. Redlands lies along the Interstate 10 (I-10) freeway corridor, which links Redlands with the cities of San Bernardino, Ontario, and Los Angeles to the west and Palm Springs and the Coachella Valley to the east. State Route (SR) 210 or the Foothill Freeway originates in Redlands, runs north at the northwestern part of Redlands, and heads west towards Pasadena.

The City owns and operates the Redlands WWTP, which includes the treatment plant facility south of the Santa Ana River, east of Nevada Street, and west of Alabama Street and the percolation ponds south of the Santa Ana River and east of Alabama Street. The WWTP is approximately 1.6 miles north of I-10 and just west of SR-210, at an elevation of 1,213 feet

above mean sea level. The facility is bounded by the Santa Ana River to the north, the City’s California Landfill to the west, and vacant land and a distribution center to the south (Figure 1). The 41-acre main treatment facility is located at 1950 Nevada Street (at the northern end of Nevada Street), and the 40-acre percolation pond area is east of Alabama Street, just south of the Santa Ana River. These areas are connected by a force main pipeline that runs from the eastern edge of the plant southeasterly and easterly, across Alabama Street, and tying to the southwestern corner of the percolation ponds.

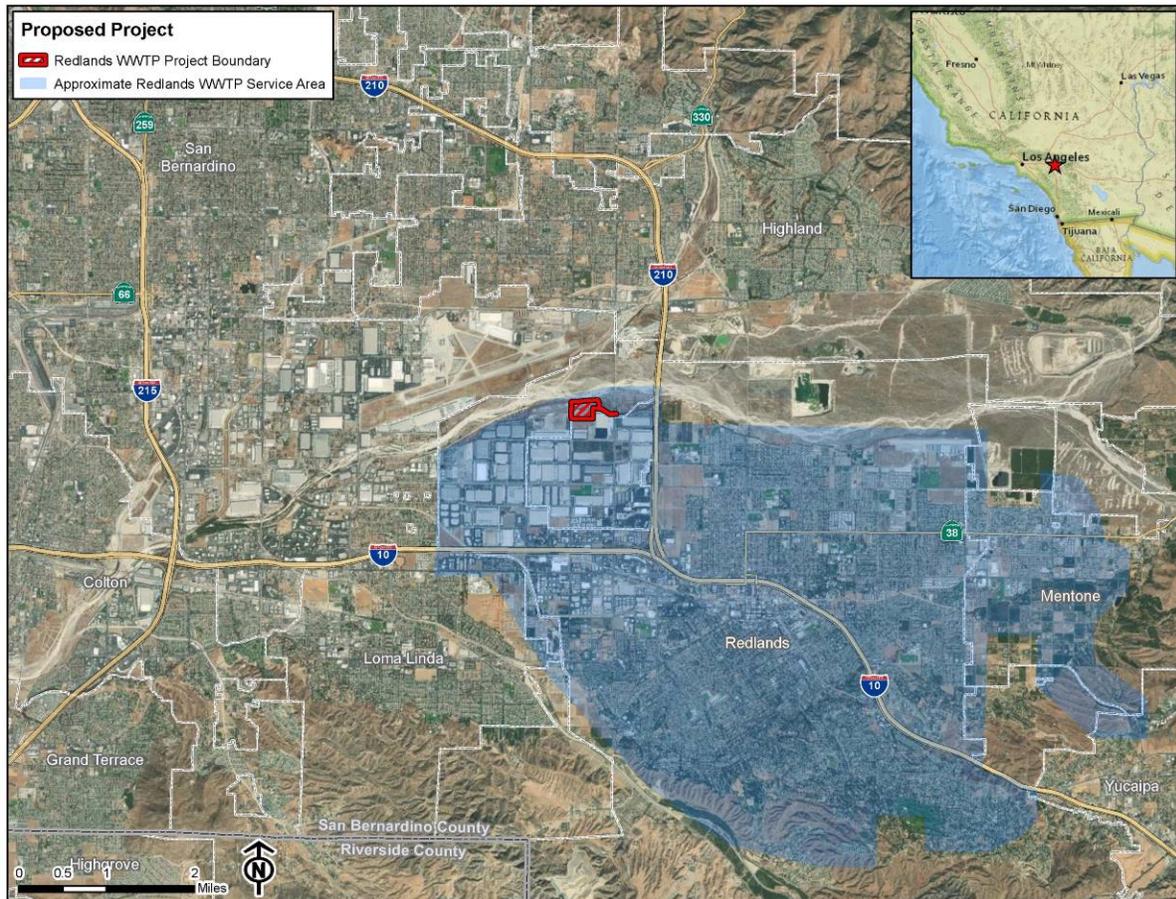


Figure 1. Regional Location and WWTP Service Area

The approximate location of the project site is Section 17 of Township 1 South, Range 3 West, San Bernardino Base and Meridian on the Redlands, CA United States Geological Survey (USGS) topographic quadrangle (latitude 34.089936° N and longitude -117.215112° W).

### 1.3 Background

Since 1962, the City has owned and operated the City of Redlands WWTP. The facility’s treatment process consisted of primary sedimentation, secondary treatment by activated sludge, and disinfection prior to discharging treated effluent into the Santa Ana River. Biosolids were anaerobically digested and distributed to sand drying beds. The facility was designed to treat peak flows of 5.0 MGD with average daily flows of 2.4 MGD (City of Redlands, 2018).

In 1971, the Santa Ana Regional Water Quality Control Board (RWQCB) instituted new discharge requirements. The WWTP underwent extensive expansion and modification. This included a new headworks facility incorporating bar screens and a grit removal system, primary sedimentation tank, trickling filter with clarifier, and a peak storage pond. New aeration basins with activated sludge pumping stations, sludge thickener, and nitrification clarifiers were constructed. A new effluent pump station transferred tertiary effluent to percolation ponds located east of the WWTP for groundwater recharge. A second anaerobic digester was built to treat the additional biosolids. At the end of construction, the design capacity of the plant was 6.0 MGD.

In 1987, under the Immediate Expansion Project, the WWTP received an additional primary sedimentation tank, trickling filter clarifier, peak storage pond, nitrification clarifier, and second sludge thickener. A third anaerobic digester was constructed and supported by additional sand drying beds. These improvements increased the plant's capacity to 9.0 MGD.

In 2000, concerns over strained groundwater resources prompted the City to examine new technologies that could produce recycled water that exceeded California Code of Regulations Title 22 requirements. By 2004, construction and implementation of an MBR filtration complex and chlorine contact chamber were completed. A chemical storage and distribution complex was also built. The plant's aeration basins were modified to treat for both the MBR and conventional activated sludge (CAS) process, creating parallel treatment trains within the WWTP. The design flow to the MBR was 6.0 MGD, leaving 3.5 MGD for the conventional treatment side of the WWTP, for a total of 9.5 MGD. The City delivers recycled water to the Mountainview Power Plant for cooling and numerous irrigation users. In 2010, the plant constructed a biosolids handling facility utilizing a centrifuge solids dewatering system.

In 2020, breakdowns of various facilities at the WWTP required the replacement of membranes and air scour blowers in the MBR, boilers/heat exchangers for the digesters, and the fine screens. In addition, new gas conditioning equipment was installed. These replacements and equipment provided the WWTP with the required operating capacity to serve existing loads, as well as improve system reliability and efficiency while avoiding a potential shutdown of the facility.

#### **1.4 Existing Facility**

The existing WWTP is a Class V WWTP that consists of 6.0-MGD MBR and 3.5-MGD conventional CAS treatment processes which produces high-quality chlorinated recycled water that meets Title 22 requirements. The WWTP operates on two separate but adjacent locations, with the main office facility and operations area on a large parcel at 1950 Nevada Street and the percolation ponds on three parcels on Alabama Street, east of the main facility. A force main pipeline conveys treated wastewater from the plant to the percolation ponds. Figure 2 shows an aerial view of the existing WWTP, including the force main pipeline.



**Figure 2. Aerial Photograph of Existing WWTP**

At the WWTP, sewer collections are first fed into the headworks and then pumped through primary clarifiers and into peak ponds. Peak ponds serve as equalization tanks at the facility. From the peak ponds, primary effluent is pumped to the CAS and MBR. Typically, approximately 20 to 40 percent of primary effluent is fed into the CAS, and the remaining flow is fed into the MBR.

Four 200-horsepower (HP) motor-operated centrifugal blowers supply process air to three MBR and three CAS aeration tanks. Mostly, two of the four blowers are continuously in operation to suffice oxygen demand. Additionally, there are three high-speed turbo blowers for MBR membrane scouring, and two out of the three blowers are continuously in operation. The operation is cycled between the three blowers to ensure even wear of the equipment.

MBR permeate is then pumped to the plant's chlorine contact tanks for disinfection. This disinfected recycled water is used at Edison's Mountainview Power Plant (Mountainview) cooling towers, the City's landfill (west of the WWTP site), and other approved industrial landscape sites. After secondary clarifiers, CAS secondary effluent goes to the secondary effluent pump station and is then pumped to eight percolation ponds. If the demand at Mountainview is not that high, disinfected recycled water also overflows to the CAS secondary effluent pump station.

Solids from the primary and secondary treatment processes are pumped to the solids handling part of the facility. This facility includes two dissolved air floatation tanks, three anaerobic digesters, one digested sludge storage tank, and two centrifuges. Anaerobically digested sludge is dewatered by centrifuge. Cake generated from centrifuges is classified as Class B biosolids. The cake is hauled to a local composting facility and the City’s landfill when necessary. Lastly, the digester gas containing 64 percent methane is used in boilers/heat exchangers to heat the digesters; the excess is flared off. Figure 3 shows the location of existing treatment facilities.

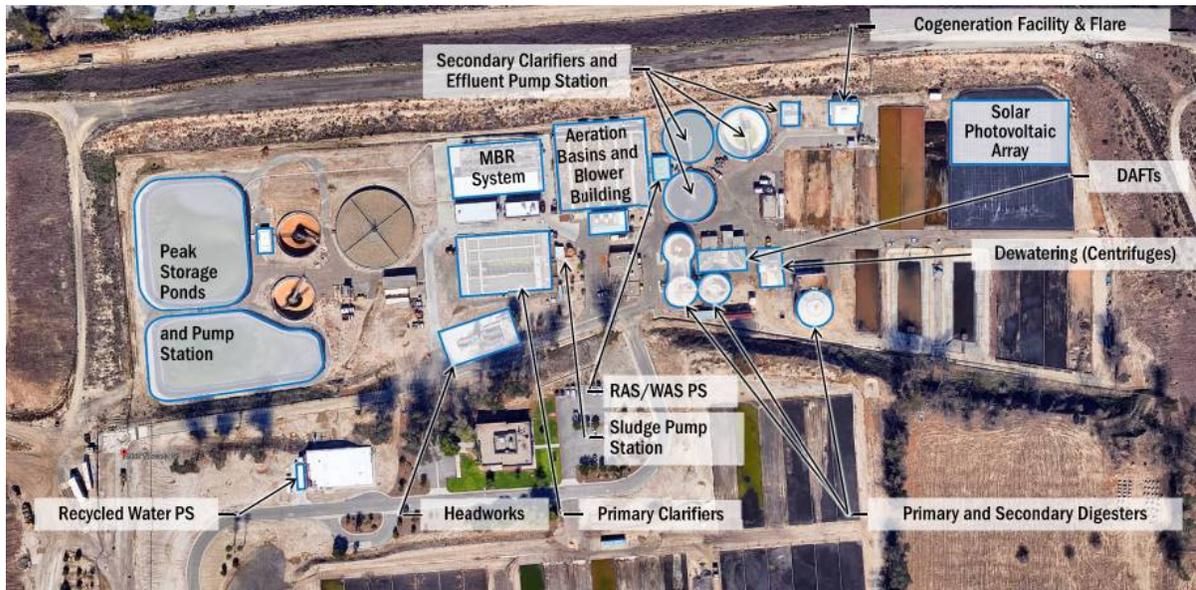


Figure 3. Existing WWTP Facilities

### 1.5 Purpose of the Project

The purpose of the proposed project is to upgrade the wastewater treatment process components, including improvements and/or repairs necessary to handle existing and projected inflow and improve system reliability and redundancy, while maintaining the WWTP’s current capacity and allowing the City to forgo future improvements for the next 20 to 30 years.

### 1.6 Description of the Proposed Project

The WWTP has a design capacity of 9.5 MGD and currently treats an average flow of 5.8 MGD. Approximately 6.0 MGD of the design capacity are in an MBR system; the remaining 3.5 MGD are in a CAS. Of the current 5.8 MGD annual average flow received at the WWTP, approximately 4.0 MGD are treated through the MBR system, and the rest are treated through CAS.

Considering the projected 0.8 percent annual population growth rate anticipated in Redlands (per the Redlands General Plan 2035), the wastewater flows by 2030 are expected to be well below the WWTP’s rated treatment capacity of 9.5 MGD; thus, an increase in the WWTP’s design capacity would not be required and is not proposed. Rather, the proposed project would install a state-of-the-art 9.5-MGD MBR system, eliminate the CAS system, and include other necessary improvements for improved efficiency and reliability. The proposed physical changes to the WWTP are shown in Figure 4 and include:



Figure 4. Proposed Modifications to the Existing WWTP

- 1. Headworks.** In the motor control center (MCC), a new gas detection system and alarms are proposed. The air compressor in front of the MCC enclosure would be relocated to comply with work space code compliance. A supervisory control and data acquisition (SCADA) interface for headworks equipment would be provided. The current headworks MCC and deteriorated concrete at beam pockets would be replaced. A new biotrickling filter odor control system, along with two washer-compactors for screenings and two washer/classifiers for grit, would be installed. The Parshall Flume and raw sewage pumps would also be replaced, and a new prefabricated building on a 400-square-foot slab on grade for the MCC would be constructed.
- 2. Primary Clarification and Pumping.** A new ferric chloride dosing pump for flow/load proportional control to avoid excessive corrosion would be installed. A new SCADA interface for the primary clarifiers would also be installed. Replacement of the chain and flight mechanism for Clarifier #2 would be completed to enable the clarifier to be put back into service. The sludge pumps, collectors and drives, and equipment (including MCC) would be replaced. In addition, a new ferric chloride storage tank would be provided, along with the recoating of the concrete ferric chloride containment area, ventilation of the primary sludge pump room, and construction of a new prefabricated building on a 400-square-foot slab on grade.
- 3. Peak Storage Ponds and Pump Station.** A new mixing system would maintain a uniform mixture of contents in the ponds, and the oldest pumps would be replaced. Proper pedestrian access (ingress/egress) to the bottom of the peak storage ponds would be constructed to alleviate safety concerns for maintenance staff. The MCC in the peak pond pump station would be replaced and the control strategy updated to add status and alarm signals to the SCADA. A new prefabricated building on a 400-square-foot slab on grade would also be constructed.
- 4. MBR and Aeration Basins.** The existing 6-MGD MBR system and the existing 3.5-MGD activated sludge system would be upgraded to operate as one single 9.5-MGD state-of-the-art MBR system to comply with the following effluent quality requirements:

  - Turbidity:
    - 0.2 Nephelometric Turbidity Units (NTU) or less 95 percent of the time
    - 0.5 NTU or less 100 percent of the time
  - Total Coliform:
    - 2.2/100 milliliters (mL) 7-day median
    - Not to exceed 23/100 mL more than once in 30 days
    - Not to exceed 200/100 mL at any time
  - Total Inorganic Nitrogen (TIN)  $\leq$  10 milligrams per liter (mg/L)
  - Phosphorous  $\leq$  4 mg/L

This 9.5-MGD MBR system conversion includes the following major facility upgrades:

**a. Upgrade of Aeration Basins and Blowers**

- Three CAS aeration basins would be converted to serve as pre-aeration tanks for the MBR system to operate at higher mixed liquor suspended solids (MLSS) (8,000 mg/L) and to provide nitrogen removal to meet the TIN – 10 mg/L or less criteria.
- New baffles would be installed/configured.
- Return activated sludge (RAS) pumps would be upgraded to provide additional capacity for 9.5-MGD MBR
- New mixed liquor return pumps would be installed for the nitrate return and anoxic mixers.
- Diffusers in the aeration basins would be replaced to suit higher oxygen transfer.
- Upgrades to the blower building to meet code compliance; installation of panic bars on doors; and modification of the heating, ventilation, and air conditioning (HVAC) system would also be completed.
- Piping for aeration blowers would be replaced on the existing CAS train.
- New mud valves would be provided for aeration basins.
- The equipment pad located in the northeast corner of the aeration basins has exposed bottom of the concrete pad. The contractor would fill in the footing cavity with concrete and construct concrete curb around the pad to shore the equipment pad.

**b. Expand MBR System**

- Additional membranes/cassettes would be installed.
- Membrane basins would be modified to hold preselected membranes in the existing basins for up to 9.5 MGD annual dry weather flow (ADWF).
- Permeate pumps would be replaced to support larger treated flows from MBR.
- Existing backpulse pumps and permeate lines would be modified (Note: MBR system has been sized to handle 13.3-MGD peak flow with one train offline. MBR permeate pumps would be sized to handle 13.3-MGD peak flow with five duty pumps [one standby pump]).

**5. Effluent Pump Station Upgrade.** The effluent pump station would be upgraded to include SCADA interface for process analyzers for monitoring and recording. In addition, effluent pump No. 3 and MCC would be replaced, a parallel pipeline to the percolation ponds would be provided, and a new prefabricated building on a 400-square-foot slab on grade would be constructed.

**6. Impure Water Pumps.** The impure water pumps below the chlorine contact tanks would be used to deliver water for fine screens cleaning. These pumps may be upgraded to ensure future requirements for washwater/fine screens cleaning are met. In addition, SCADA interface would be provided for the impure water pumps.

**7. Supernatant Ponds.** The MCC would be replaced; struvite management would be improved; and a centrate equalization tank, pumping station, and glass-lined piping to the fine screens would be provided. The supernatant pond lining would also be replaced.

**8. Thickening System Upgrade.** The thickened waste activated sludge (TWAS) pumps Nos. 1-4 and dissolved air floatation thickener (DAFT) recycle pump No. 1 would be replaced. In

addition, the proposed project would overhaul/replace the internal mechanism for the DAFT No. 1, and SCADA interfaces would be provided for all DAFTs. A new prefabricated building on a 400-square-foot slab on grade would also be constructed.

**9. Digestion System Upgrade.** Upgrades to the digestion system include the addition of a new digester and replacement of the boiler/heat exchanger at each digester to provide consistent heating of digesters. SCADA interfaces would be provided for all digesters as well.

**10. Recycled Water Pump Station.** Recycled water pump No. 1 would be replaced.

**11. Dewatering System.** A new silo and sludge conveyor system for transferring dewatered sludge from the centrifuges for direct loading onto sludge hauling trailers/trucks would be provided, and the dewatering sludge feed pump No. 1 and dewatering grinder No. 1 would be replaced. The small centrifuge would also be replaced to match large centrifuge capacity, and SCADA interfaces for centrifuges would be installed.

**12. Plantwide Instrument and Control (I&C) and SCADA System Upgrades.**

- a. The existing SCADA system would be upgraded and expanded to include the following plant processes that are currently not interfaced with SCADA:
  - Headworks equipment
  - Primary clarifiers and sludge pumps
  - Fine screens
  - DAFTs
  - Primary and secondary digesters
  - Dewatering centrifuges
  - Impure water pumps
  - Waste gas flare
  - Gas conditioning system
- b. Process area status and alarms would be added on plant SCADA for the headworks, peak pond pumps, aeration basin mixers, RAS and waste activated sludge (WAS) pumps, secondary clarifiers, effluent pumps, recycled water pumps and SCADA communication health. The programmable logic controller (PLC)/SCADA communication network cables would be converted to Device Level Ring (DLR) topology, with the latest controllers and communications throughout the plant.
- c. Existing plant control strategies would be modified and optimized to meet the City's operational requirements.
- d. Existing piping and instrumentation diagrams (P&IDs) for facilities being modified would be updated.
- e. Calibration stickers on all instruments would be updated or provided.

**13. Plantwide Electrical System Upgrades.** The proposed project would replace the following electrical equipment:

- a. Switchboard M replacement
- b. MCC replacements
- c. Additional modifications/changes to existing MCCs:
  - Headworks equipment
  - Primary clarifiers and sludge pumps
  - Primary clarifier sludge pump room ventilation
  - Process equipment replacement

**14. Redundant Pipelines.** To increase system reliability, new/redundant pipelines would be constructed for the following key critical pipelines:

- An approximately 300-foot-long pipe from the headworks at the center of the plant, running northeasterly and then northerly to tie to the primary clarifiers.
- A new 375-foot-long pipe generally extending westerly from the primary clarifiers to the peak storage ponds at the northwestern section of the plant.
- A 220-foot-long pipe along the northern edge of the plant from aeration basins to membrane basins to accommodate increased flows to the MBR process.
- An approximately 1,200-foot-long, 27-inch-diameter force main pipeline from the effluent pump station southerly and then easterly (south of the digesters) through the drying ponds approximately 10 feet from and roughly parallel to the existing pipeline and across Alabama Street to the southwest corner of the percolation ponds. The new pipeline would end in a valve vault with a tee between the two pipelines before the first percolation pond.

Trenching for these pipelines would be a maximum of approximately 15 feet wide and 15 feet deep.

**15. Landscape Architecture.** Demolition plans, as well as new construction, planting, and irrigation plans, would be included in the proposed project for landscaping and site improvements. Landscaping would include approximately 50 trees along the east side of the frontage road and along the southern and eastern perimeter of the facility. Beautification and an entry monument are proposed at the Nevada Street entrance. Other site improvements include general landscaping along the existing access road off Nevada Street; walkway and patio improvements, along with informational exhibits; and another small access road west of the main operations building. Approximately 4,000 linear feet of trenching for utilities (i.e., irrigation systems) would be required at a maximum depth of 5 feet.

### **1.6.1 Construction**

The proposed upgrades and improvements to the WWTP would require construction (i.e., demolition, excavation, and grading) within the existing plant boundaries and along the alignment of the existing force main to install a redundant pipeline from the WWTP to the percolation ponds. Construction vehicles, equipment, and materials would be staged at the WWTP and would require road closure for installation of the redundant pipeline across Alabama Street.

Construction of the upgrades and improvements is estimated to require approximately 24 months and would include earthwork on approximately 75,000 square feet. Project construction would require approximately 6,500 linear feet of utility trenching. Utility work would typically include trenching to a maximum depth of 15 feet in a corridor approximately 15 feet wide. Five new prefabricated buildings would be installed, each of which would be approximately 400 square feet in area. Excavations of up to 2 feet would be required for foundation work.

### 1.6.2 Operation

Operation of the WWTP would continue to be managed by the City. The facility currently employs a staff of 23 individuals plus 6 operator-in-training volunteers and operates on a continuous basis – 24 hours per day, 7 days per week (City of Redlands, 2019a). No additional personnel are anticipated to be required to support the proposed project.

## 1.7 Surrounding Land Uses and Setting

The WWTP site is located at the northwestern section of Redlands. This area is generally developed with industrial land uses, along with vacant land/agricultural fields. The WWTP site consists of two locations immediately south of the Santa Ana River, which runs along the northern boundary of Redlands. The main office and operations area of the WWTP occupy approximately 41 acres at the northern end of Nevada Street. This facility is bounded by Nevada Street and the Redlands California Landfill to the west, the Santa Ana River to the north, and vacant land and fallow fields (with evident disking and mowing) to the east and south. This area is surrounded by a chain-link fence. The WWTP percolation ponds are located to the east of the main facility and encompass approximately 40 acres. The ponds are bounded by the Santa Ana River to the north, Alabama Street and vacant land to the west (with the WWTP main facility farther west), SR-210 to the east, and the Home Depot Distribution Center to the south. The ponds are also surrounded by a chain-link fence. A force main pipeline runs from the WWTP to the percolation ponds through the drying ponds at the eastern section of the plant site and across Alabama Street. The pipeline alignment is bounded by undeveloped land.

## 1.8 Related Projects

CEQA Guidelines Section 15130 requires an analysis of the significant cumulative impacts of a proposed project. Cumulative impact is referred to as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines Section 15355).

The May 2021 listing of major projects in Redlands was reviewed to identify projects that are ongoing, planned, approved, or under construction near the project site. Projects within 1 mile of the WWTP include:

- **Bergamot Specific Plan (TTM 20336)** – Subdivision of 58 acres on the north side of Domestic Avenue, west of Texas Street, and east of SR-210 into 317 single-family lots with 10 acres for parks, roadways, and infrastructure. This project is in process.
- **Heritage Specific Plan (TTM 20257)** – Subdivision of 37 acres on the west side of Texas Street, north of San Bernardino Avenue, and south of Pioneer Avenue into 207 single-family lots. This project is under construction.

- **Starlite Management-17 (Tract 17022)** – Subdivision of 4.3 acres on the northeast corner of West Pioneer Avenue and Texas Street into 12 residential lots for single-family residences. This project is in process.

### 1.9 Other Agencies Whose Approval is Required

The planning and regulatory agencies shown in Table 1 have potential permit or approval authority for the proposed project.

**Table 1. Planning and Regulatory Agencies with Permit or Approval Authority**

AGENCY	PERMIT OR APPROVAL AUTHORITY
California Department of Transportation, Transportation Permits Issuance Branch	Permit for transport of heavy construction vehicles on State Highways
State Water Resources Control Board	State Revolving Fund Loan Review and Approval
Santa Ana Regional Water Quality Control Board	National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements
City of Redlands Building & Safety Division	Building Permits
South Coast Air Quality Management District	Permit to Construct; Permit to Operate (new equipment including MBR process and boilers/heat exchangers)

### 1.10 Tribal Consultations

California Native American tribes traditionally and culturally affiliated with the project area have been offered the opportunity to consult pursuant to Assembly Bill (AB) 52 – PRC Section 21080.3.1. This is discussed further in Section 2.3.XVIII below.

### 1.11 State Revolving Fund Loan

The City would apply for a Clean Water State Revolving Fund (SRF) loan from the State Water Resources Control Board (SWRCB) to fund the project. The SRF Loan Program is partially funded by United States Environmental Protection Agency (EPA) and subject to federal environmental regulations, including the Endangered Species Act (ESA), the National Historic Preservation Act (NHPA), and the General Conformity Rule for the Clean Air Act (CAA). EPA has chosen to use CEQA as the compliance base for California’s SRF Loan Program, in addition to compliance with the ESA, NHPA, and CAA. The SWRCB calls these requirements CEQA-Plus.

The SWRCB Division of Financial Assistance is a Responsible Agency that would act on behalf of EPA to review and consider the CEQA document before approving the project’s funding. The SWRCB would determine the adequacy of the CEQA document and seek concurrence from federal agencies on compliance with federal crosscutting regulations. The CEQA document is also transmitted to the State Clearinghouse for State agency review before the SWRCB begins consultation with federal agencies for concurrence.

Additional environmental analyses are required for federal compliance associated with the CEQA-Plus process for the SRF loan application for the proposed upgrade of the Redlands WWTP. The environmental analyses for applicable federal consultation processes are underway and would be included in the CEQA-Plus documentation that would accompany the SRF loan application. Supporting information for federal requirements is provided in Table 2.

**Table 2. Federal Environmental Requirements for SRF Loan Application Review**

<b>SRF APPLICATION FORM ATTACHMENT</b>	<b>FEDERAL REGULATION/SUBJECT</b>	<b>INITIAL STUDY SECTION</b>
E2.2	EPA Clean Air Act General Conformity Analysis	2.3.III (b)
E2.3	Federal Endangered Species Act (Section 7)	2.3.IV (a)
E2.3	Migratory Bird Treaty Act	2.3.IV (a, d)
E2.3	Protection of Wetlands (Executive Order 11990)	2.3.IV (c)
E2.5	National Historic Preservation Act (Section 106)	2.3.V (a)
E2.5	Native American Consultation	2.3.XVIII (b)
E2.5	Archaeological and Historic Preservation Act	2.3.V (b)
(not applicable)	Magnuson-Stevens Fishery Conservation and Management Act	2.3.IV (a)
(not applicable)	Fish and Wildlife Coordination Act	2.3.IV (c, d)
(not applicable)	Rivers and Harbors Act, Section 10	2.3.IV (c, d)
(not applicable)	Flood Plain Management (Executive Orders 11988, 12148, and 13690)	2.3.X (c)
(not applicable)	Wild and Scenic Rivers Act	2.3.I (a)
(not applicable)	Coastal Barriers Resources Act	2.3.X (d)
(not applicable)	Coastal Zone Management Act	2.3.X (d)
(not applicable)	Safe Drinking Water Act – Sole Source Aquifer Protection	2.3.X (b)
(not applicable)	Farmland Protection Policy Act	2.3.II (a)
(not applicable)	Socioeconomic Impact Analysis	2.3.XXII
(not applicable)	Environmental Justice	2.3.XXIII

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## 2.0 ENVIRONMENTAL ANALYSIS

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The CEQA Environmental Checklist and discussion of potential environmental effects in Section 2.3 below were completed in accordance with Section 15063(d)3 of the CEQA Guidelines to determine if the proposed project may have any significant impacts on the environment.

### 2.1 Environmental Factors Potentially Affected

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

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

### 2.2 Determination

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.
- I find that although the proposed project could have a significant effect on the environment, there would not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION would be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Initial Study/Mitigated Negative Declaration

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\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
For

### 2.2.1 Evaluation of Environmental Impacts:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a. Earlier Analysis Used. Identify and state where they are available for review.
  - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

## Initial Study/Mitigated Negative Declaration

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

### 2.3 CEQA Environmental Checklist

A brief explanation is provided for all determinations. A “No Impact” or “Less Than Significant Impact” determination is made when the project would not have any impact or would not have a significant effect on the environment for that issue area, respectively, based on a project-specific analysis.

<b>I. Aesthetics</b>				
Would the project:				
<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Have a substantial adverse effect on a scenic vista?			X	

The Redlands General Plan 2035 identifies several historic and scenic districts in Redlands, south of I-10. The project site is located more than 2 miles from these districts; therefore, the proposed improvements would not be located in nor be visible from these historic and scenic districts. While the General Plan states that views of the Santa Ana River wash and mountains in the background are considered scenic views, as seen from Riverview Drive, the site is not located near Riverview Drive and would not affect views of the river and distant mountains. Under the Wild and Scenic Rivers Act, the Santa Ana River north of the site is not designated as a wild and scenic river.

The project site is in a predominantly industrial area, with some vacant lands and agricultural fields. The WWTP site presents an industrial view, as seen from the cul-de-sac of Nevada Street. The site of the pipeline alignment presents a view of vacant land from Alabama Street. Earthen berms block views of this area from Alabama Street, the Santa Ana River, and areas farther north. Thus, public views would not change with the proposed project. The proposed structures at the main facility would intensify the industrial setting of the site and surrounding area, but proposed trees and landscaping would soften the views. The force main pipeline would be underground and would not change public views. The project would not adversely affect any scenic views. The effect of the project on scenic vistas would be considered less than significant.

<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X

There is no officially-designated State Scenic Highway near the WWTP site. The portion of I-10 from SR-38 to SR-62 near Whitewater and the portion of SR-210 from SR-330 to I-10 are eligible State Scenic Highways but are located 2.2 and 2.4 miles from the WWTP, respectively. The WWTP is not visible from these freeway segments. As such, the proposed WWTP improvements

would not affect views from eligible State Scenic Highways. The City has designated several streets as scenic highways, drives, and historic streets. The WWTP is not located near any of these scenic highways, drives, or streets. Also, the site is not visible from the Emerald Necklace Trail and Scenic Route that passes through Pioneer Avenue at the northern section and on various streets at the eastern section of Redlands. No impact on scenic resources along a Scenic Highway would occur with the project.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	

The project site is currently defined by equipment and structures that present an industrial view, along with several aeration, drying, peak, and percolation ponds used for wastewater treatment. The proposed project would introduce the same types of structures and equipment; therefore, it would reflect the same industrial use and public views from Nevada Street, but it would not be visible from Alabama Street. The main facility has digesters that are approximately 25 feet tall. The proposed equipment and structures would be lower or at the same height as these digesters. An intensified view of the industrial operations would only be visible from the cul-de-sac of Nevada Street. The earthen berms at the northern boundary of the site would continue to block views of the WWTP from the Santa Ana River and areas farther north. Similarly, earthen berms along Alabama Street block views of the main WWTP site. Because the project site has limited visibility from public roadways, it would not result in substantial degradation of the visual quality of the site or the surrounding area. Construction of the project may temporarily degrade the visual quality of the site during construction activities, but this would be temporary and only visible from Nevada Street. Impacts would be considered less than significant.

The project would not result in any conflicts with City plans and policies for the preservation of open space and the protection of scenic views. It would not adversely impact the visual character or quality of the site or project area. Impacts on the visual character or quality of the area would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			X	

The WWTP site has limited sources of light and glare, and the area surrounding the site consists of industrial uses, agricultural fields, and vacant land that are not sensitive to light and glare.

There are no residences near the site, with the nearest residence located approximately 0.7 mile to the southeast. Construction activities would occur primarily during daylight hours; therefore, no new sources of artificial lighting would be created during construction at the WWTP site. The proposed improvements would include artificial lighting for security purposes. This new lighting would be focused inward onto the site and would not adversely affect day or nighttime views in the area. The proposed buildings, facilities, equipment, and pump stations would not have glass, mirror, or other glazed surfaces that may create glare in the area. New pipelines would be underground. Therefore, impacts from light and glare would be considered less than significant.

**II. Agriculture and Forestry Resources**

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

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X

The project area has historically been in agricultural use, mainly as citrus orchards, but in recent decades, the land has been developed with industrial warehouses; however, the WWTP has been in operation at the site since 1962.

The State of California Department of Conservation Division of Land Resources monitors farmland as part of its Farmland Mapping and Monitoring Program. The project site is classified as Urban and Built-up Land, with the Santa Ana River to the north classified as Grazing Land and areas to the south classified as Urban and Built-up Land, Grazing Land, and Farmland of Statewide Importance. The proposed improvements at the WWTP site would not be located on areas designated as Farmland of Statewide Importance nor would the project result in conversion of farmland to nonagricultural use. There would be no impacts to Farmland.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X

The project site is not in agricultural use and is not under a Williamson Act contract. Adjacent areas that are in agricultural use are classified as Non-Enrolled Land. The site is not within the agricultural zoning districts (i.e., A-1, A-1-20, A-2) of the City's Zoning Ordinance. The WWTP is zoned as Open Space and Public/Institutional, which allows agricultural uses. However, the site is developed with the WWTP facilities, and the project would not change the land use of the site. Thus, the project would not conflict with existing zoning or any Williamson Act contract. No impact would occur.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X

The WWTP site is not part of a forest and is not located near a forest. The nearest forest is the San Bernardino National Forest, which is approximately 3.6 miles to the north. The site is not used as timberland or for timberland production. Therefore, the project would not result in a conflict with existing zoning or cause rezoning of any forest land. Impacts to forest land or timberland would not occur.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X

There is no forest land on or near the site; therefore, the project would not result in the conversion of any forest land to non-forest use. There would be no impact on forest land with implementation of the project.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				X

The proposed WWTP improvements would retain the public facility use of the site and would not extend beyond the site boundaries. The proposed trees along the southern boundary of the site near the crop fields, which appear fallow, and citrus orchards to the southwest would not result in nor promote the conversion of Farmland into nonagricultural uses. There would be no impact on Farmland as a result of implementation of the project.

<b>III. Air Quality</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	

A CAA General Conformity Analysis was prepared for the project and is provided in Appendix A. The findings of the analysis are summarized below.

Under the CAA, California is divided into several Air Quality Control Regions (AQCRs) that, for the most part, represent separate air basins. The project site is in the Metropolitan Los Angeles AQCR (also known as the South Coast Air Basin), which encompasses the counties of Ventura and Orange, and portions of the counties of Los Angeles, Riverside, and San Bernardino. Designated by EPA as AQCR 24, this area is under jurisdiction of the South Coast Air Quality Management District (SCAQMD).

Air basins are designated as being either in “attainment” or in “nonattainment” of the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), respectively. These designations determine which provisions of the CAA and California Clean Air Act (CCAA) apply to the air basin and how air quality in the region is managed. For attainment areas, the goal is to avoid air quality degradation while accommodating regional development. For nonattainment areas, the goal is to attain and maintain the standards. *De minimis* rates of air pollutant emissions were established in the Final Rule for Determining Conformity of General Federal Actions to State or Federal Implementation Plans to focus conformity requirements on projects with the potential for significant air quality impacts. Except for lead, the *de minimis* levels are based on the CAA’s major stationary source definitions for criteria air pollutants (and their precursors) and vary by the severity of the nonattainment area.

The South Coast Air Basin, which includes the project site, is in extreme nonattainment of the 8-hour ozone (O<sub>3</sub>) standard; is designated a maintenance area for coarse particulate matter (PM<sub>10</sub>) and nitrogen dioxide (NO<sub>2</sub>); and is in nonattainment for fine particulate matter (PM<sub>2.5</sub>).

Consequently, direct and indirect emissions of volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) (which are precursors to O<sub>3</sub>), as well as emissions of PM<sub>10</sub> and PM<sub>2.5</sub>, resulting from the proposed project, would add to existing air pollution levels in the South Coast Air Basin; thus, the project is subject to a conformity determination. To determine whether a full General Conformity determination is necessary, construction and operational emissions are compared to General Conformity *de minimis* thresholds. A project conforms to the applicable State Implementation Plan (SIP) when criteria pollutants do not exceed their respective *de minimis* thresholds of 100 tons per year (tpy) for carbon monoxide (CO), PM<sub>10</sub>, and PM<sub>2.5</sub> and 10 tpy for VOC and NO<sub>x</sub>.

### Construction

Air pollutant emissions from construction of the proposed project are estimated in Table 3 below. These emissions would be temporary and would not have adverse, long-term effects on air quality. As shown, the project would not exceed *de minimis* thresholds, nor would it exceed SCAQMD thresholds during construction.

### Operations

After the proposed WWTP upgrade and modernization is completed, the design capacity and flows at the WWTP would remain the same, so there would not be any change in operational emissions. The number of personnel operating the WWTP and chemical truck deliveries would also remain the same after completion of construction. Therefore, there would be no combustion or particulate matter emissions that would be associated with additional personnel and delivery trucks traveling to the upgraded WWTP during operations. Operational emissions from the three digester gas-fired boilers/heat exchangers have not been included because they would be subject to SCAQMD Regulation XIII – New Source Review (NSR). The goal of this regulation is to achieve no net emission increases from new or modified permitted sources of nonattainment air contaminants or their precursors. Rule 1303 (part of Regulation XIII) requires any new or modified source of emissions of a non-attainment contaminant or of ammonia to install Best Available Control Technology (BACT) to obtain a Permit to Construct. As a modified source of VOCs, an O<sub>3</sub> precursor, and of ammonia, the project would be subject to the NSR permitting requirements. Because the proposed newer boilers/heat exchangers would have to comply with SCAQMD BACT requirements, their emissions would be lower than those of the existing boilers/heat exchangers.

Emissions from the proposed project would not exceed their respective *de minimis* thresholds; therefore, the project would not conflict with the Air Quality Management Plan for the South Coast Air Basin nor obstruct with the objectives or the implementation of applicable portions of SCAQMD's attainment and maintenance plans. Impacts would be less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Violate any air quality standard or result in a cumulatively considerable net increase in an existing or projected air quality violation?			X	

The proposed project would occur in an area designated as maintenance (redesignated from nonattainment after meeting the applicable NAAQS) for PM<sub>10</sub> and NO<sub>2</sub>, as extreme nonattainment for 8-hour O<sub>3</sub>, and as nonattainment for PM<sub>2.5</sub>. Emissions from project construction and operations would add to existing air quality violations.

### Construction

The proposed project would emit air pollutants during construction. Construction emissions were calculated using SCAQMD’s California Emissions Estimator Model, version 2016.3.2 (CalEEMod) and are provided in Table 3. These emissions would be temporary and generated over a period of 24 months. As shown, construction emissions would not exceed the *de minimis* thresholds and SCAQMD’s mass daily thresholds (MDT). Thus, short-term impacts on air quality would be less than significant.

**Table 3. Estimated Air Pollutant Emissions during Construction**

EMISSIONS SOURCE, METRIC	EMISSIONS BY CRITERIA POLLUTANT OR PRECURSOR					
	CO	NO <sub>x</sub>	VOC	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
2022 (tons)	0.58	0.65	0.07	0.00	0.07	0.05
2023 (tons)	1.75	1.60	0.22	0.00	0.07	0.07
2024 (tons)	0.63	0.63	0.07	0.00	0.02	0.02
Total Construction, tons	<b>2.96</b>	<b>2.81</b>	<b>0.36</b>	<b>0.00</b>	<b>0.16</b>	<b>0.14</b>
<i>de minimis</i> Threshold, TPY	100	10	10	NA	100	100
Exceed <i>de minimis</i> Threshold?	No	No	No	NA	No	No
Average, pounds per day	<b>33.4</b>	<b>43.4</b>	<b>4.5</b>	<b>0.06</b>	<b>13.2</b>	<b>7.4</b>
SCAQMD MDT, pounds per day	550	100	75	150	150	75
Exceed MDT?	No	No	No	No	No	No

CO = carbon monoxide  
 NO<sub>x</sub> = nitrogen oxides  
 SO<sub>x</sub> = sulfur oxides  
 VOC = volatile organic compounds  
 PM<sub>10</sub> and PM<sub>2.5</sub> = particulate matter less than or equal to 10 microns and 2.5 microns in diameter, respectively  
 TPY = tons per year  
 MDT = SCAQMD Mass Daily Thresholds for construction, intended to determine whether project impacts are regionally significant.

Source: Clean Air Act General Conformity Applicability Analysis for Proposed Upgrade of the City of Redlands Wastewater Treatment Plant, 2021.

While impacts on air quality during construction would be less than significant, particulate matter (PM) emissions could be reduced by approximately 50 percent by watering for dust control (as required by SCAQMD Rule 403 and as standard construction practice).

**Operations**

As discussed above, after the proposed WWTP upgrade and modernization is completed, the design flow at the WWTP would remain the same, so there would not be any change in operational emissions. The number of personnel operating the WWTP and chemical truck deliveries would also remain the same after completion of project construction. No emissions associated with additional personnel and delivery trucks traveling to the project site would occur during operation.

The project would apply to SCAQMD for a Permit to Construct and a Permit to Operate and would comply with permit conditions. The proposed boilers/heat exchangers would be subject to SCAQMD BACT requirements; therefore, their emissions would be lower than those of the existing boilers/heat exchangers to be replaced. The SCAQMD permit conditions are designed to assure compliance with air quality standards; therefore, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Impacts from operation of the project would be less than significant.

No major change in emissions would occur during long-term operations, and impacts would be less than significant. The temporary increases in emissions that would be attributed to construction of the project are well below SCAQMD’s significance thresholds. Thus, project emissions would not be considered cumulatively considerable and would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?			X	

Residential uses, schools, hospitals, and similar land uses are considered sensitive to air pollutants because they tend to be occupied for long periods and occupants typically include air pollutant-sensitive groups such as the aged, the young, and the infirm. Recreational areas also are considered relatively sensitive to air pollutants because of the frequency and duration of outdoor athletic activities in these areas. Commercial and industrial uses are generally considered insensitive to air pollutants because workers generally work indoors and exposure periods are limited to work hours, and patrons and visitors are onsite for limited time periods. Transportation corridors are also considered relatively insensitive to air pollutants because exposure periods from any one source are generally short for travelers.

There are no sensitive receptors such as schools, hospitals, or residences in the immediate area of the WWTP. The nearest sensitive receptor is Citrus Valley High School, which is located approximately 0.5 mile southeast of the WWTP, across SR-210. The nearest residential neighborhood is located approximately 0.7 mile southeast, on the opposite side of SR-210. The prevailing winds at the site are from the northwest. Due to distance from the project site and the

type and size of proposed improvements, residential areas and the high school would not experience substantial pollutant concentrations from construction of the proposed project and operation of the upgraded WWTP. Thus, air quality impacts on sensitive receptors would be less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in substantial emissions (such as odors or dust) adversely affecting a substantial number of people?			X	

Wastewater inflows to treatment plants generally bring with them a variety of odorous compounds that are either present in the original wastewater or developed during their transport through the sewer system (Table 4). Municipal wastewater systems generate various additional types of gases during the treatment and removal of biological and chemical contaminants and filtration and aeration of the treated wastewater. Odors are usually caused by sulfur-bearing compounds, such as hydrogen sulfide (H<sub>2</sub>S), as shown in Table 5.

**Table 4. Typical Composition of Odorous Compounds in WWTP Influent**

COMPOUND	AVERAGE CONCENTRATION (MICROGRAM/LITER)
Hydrogen sulfide	23.9
Carbon disulfide	0.8
Methyl mercaptan	148
Dimethyl sulfide	10.6
Dimethyl disulfide	52.9
Dimethyl amine	210
Trimethyl amine	78
n-Propylamine	33

Source: Hwang et al., 1995.

**Table 5. Odorous Sulfur Compounds Typically Present in Wastewater**

COMPOUND	ODOR THRESHOLD (PARTS PER MILLION [PPM])
Allyl mercaptan	0.00005
Dimethyl sulfide	0.0001
Ethyl mercaptan	0.000019
Hydrogen sulfide	0.00047
Methyl mercaptan	0.0011

Source: EPA, 1985.

While these odors occur and would continue to be generated by the Redlands WWTP, the project would not increase the amount of wastewater that is treated at the WWTP. A new biotrickling filter odor control system would be installed as part of the proposed project, which would minimize and reduce existing odorous compounds emitted by the WWTP. In addition, there are no sensitive receptors near the site that would subject a substantial number of people to objectionable odors. Thus, adverse odor impacts would be less than significant.

<b>IV. Biological Resources</b>				
Would the project:				
<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		

Project compliance with the Federal and California Endangered Species Acts, California Fish and Game Code, Migratory Bird Treaty Act (MBTA), and Protection of Wetlands (Executive Order [EO] 11990) was evaluated in the Biological Resources Technical Report that was prepared for the project and provided in Appendix B. The findings of this report are summarized below.

Based on reviews of the *Information Planning and Consultation* (IPaC) planning tool of the U.S. Fish and Wildlife Service (USFWS), the California Natural Diversity Data Base (CNDDDB) of the California Department of Fish and Wildlife (CDFW), the National Oceanic and Atmospheric Administration’s (NOAA) National Marine Fisheries Service Species Lists, the California Native Plant Society’s (CNPS) Inventory of Rare Plants, eBird (2019), and the Consortium of California Herbaria’s (CCH) CCH1 Database, there are 41 special-status biological resources that could be present in the project area, as identified in the literature search. These include 14 plants, 1 fish, 8 birds, 10 mammals (including 4 bats and 6 burrowing mammals), and 8 amphibians and reptiles.

A biological survey of the project site conducted in May 2019 and May 2021 determined that of those 41 species, 10 wildlife species had substantial (i.e., moderate or higher) potential to occur on the site, including no plants, no fish, 1 bird, 9 mammals (including 4 bats and 5 burrowing mammals), and no amphibians and reptiles (as listed in Table 6). Habitat is absent for the other 31 sensitive species.

Table 6. Sensitive Wildlife Species with Suitable Habitat at the Project Site

COMMON NAME (SCIENTIFIC NAME)	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE
<i>Birds</i>			
Burrowing owl ( <i>Athene cunicularia</i> )	SSC, BCC	Coastal prairie, coastal scrub, great basin scrub, desert scrub, and grasslands.	Moderate potential to occur. The project site has suitable habitat present, and California ground squirrel were observed at the site, which are one of the primary prey for this species.
<i>Mammals</i>			
Pallid bat ( <i>Antrozous pallidus</i> )	SSC	Chaparral, coastal scrub, desert wash, great basin scrub, desert scrub, riparian woodland, upper montane coniferous forest, and grasslands.	Moderate potential to occur. The site is developed; no guano was observed on the site, but structures present could support roosting of bats.
Northwestern San Diego pocket mouse ( <i>Chaetodipus fallax fallax</i> )	SSC	Chaparral and coastal scrub.	Moderate potential to occur. Small burrows present at the percolation basins could support this species.
San Bernardino kangaroo rat ( <i>Dipodomys merriami parvus</i> )	SSC	Coastal scrub.	Moderate potential to occur. Critical habitat present. Small burrows present at the percolation basins could support this species.
Stephens' kangaroo rat ( <i>Dipodomys stephensi</i> )	FE, SE	Coastal scrub and grasslands.	Moderate potential to occur. Small burrows present at the percolation basins could support this species.
Western mastiff bat ( <i>Eumops perotis californicus</i> )	SSC	Chaparral cismontane woodland, coastal scrub, and grasslands.	Moderate potential to occur. The site is developed; no guano was observed on the site, but structures present could support roosting of bats.
Western yellow bat ( <i>Lasiurus xanthinus</i> )	SSC	Desert wash.	Moderate potential to occur. The site is developed; no guano was observed on the site, but structures present could support roosting of bats.
Pocketed free-tailed bat ( <i>Nyctinomops femorosaccus</i> )	SSC	Joshua tree woodland, pinon & juniper woodlands, riparian scrub, and Sonoran desert scrub.	Moderate potential to occur. The site is developed; no guano was observed on the site, but structures present could support roosting of bats.

**Table 6. Sensitive Wildlife Species with Suitable Habitat at the Project Site**

COMMON NAME (SCIENTIFIC NAME)	STATUS	HABITAT	POTENTIAL FOR OCCURRENCE
Los Angeles pocket mouse ( <i>Perognathus longimembris brevinasus</i> )	SSC	Coastal scrub.	Moderate potential to occur. Small burrows present at the percolation basins could support this species.
American badger ( <i>Taxidea taxus</i> )	SSC	Coastal scrub, chaparral, desert scrub, and others.	Moderate potential to occur. The project site has suitable habitat present, and California ground squirrel were observed at the site, which are one of the primary prey for this species.
FE = Federally-listed Endangered; SE = State-listed Endangered; SSC = CDFW Species of Special Concern; BCC = USFWS Bird of Conservation Concern			

Source: *Biological Survey Technical Memorandum for Proposed Redlands Wastewater Treatment Plant Upgrade Project, 2021.*

The Magnuson-Stevens Fishery Conservation and Management Act was promulgated to promote fishery conservation, establish regional councils to manage fish stocks, and protect essential fish habitat. There is no Essential Fish Habitat in the project area. Critical Habitat for the Santa Ana River sucker is present immediately adjacent to the site on the north side within the Santa Ana River but is not expected to be directly impacted by the project.

While no special-status plant or wildlife species were observed in the biological study area during the habitat assessment, suitable habitat is available for the following biological resources: nesting birds, burrowing owl (BUOW), burrowing mammals (San Bernardino kangaroo rat, Stephens' kangaroo rat, northwestern San Diego pocket mouse, Los Angeles pocket mouse, and American badger), and bats.

**Nesting Birds.** The project site, including both the main facility area and force main pipeline alignment, have features that could support a variety of nesting birds. Well-established ornamental trees and cubby structures may provide marginal nesting habitat for common birds, including raptors, protected under the MBTA and the California Fish and Game Code. Due to the presence of water in structures of the Redlands WWTP and high-quality habitat located in the adjacent Santa Ana River, various bird species encroach the site at any time, including special-status species. Construction of the proposed project that occurs during the general bird nesting season (February 15–September 1) could result in impacts to nesting birds. Thus, mitigation measures BIO-1, BIO-2, BIO-3, and BIO-4 shall be implemented to prevent significant adverse impacts on nesting birds and raptors.

**Burrowing Owl.** BUOW, a state species of concern and a protected species under the MBTA, utilizes the abandoned burrows of ground squirrels, foxes, and other small animals. This ground-nesting species is active during the day and is easily observed standing on a mound of excavated earth next to the burrow or actively hunting for small prey, including insects, lizards, and mice. The breeding season for the BUOW in California is from March to August, but it can begin as early

as February and extend into December (Gervais, et al., 2008). No BUOW, or sign thereof, was observed during the May 2019 survey. Nonetheless, the Redlands WWTP site (i.e., main facility area and percolation ponds) contain marginally suitable habitat for BUOW. All burrows observed that corresponded to sizes/characteristics that could support BUOW were assessed and found to be occupied or recently occupied by California ground squirrel.

BUOW have been known to occupy habitats similar to those on the project site, such as water basins, fallow fields, and open disturbed areas. As a result, avoidance/minimization measures should be implemented to reduce impacts on BUOW. It is important to note that BUOW could encroach on the site at any time, and as a precaution, awareness training (BIO-3) and preconstruction surveys (BIO-5) shall be conducted following guidelines provided in California Department of Fish and Game's *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012) to prevent significant adverse impacts to BUOW.

**Burrowing Mammals.** The project site contains habitat that is suitable for several burrowing mammals, including San Bernardino kangaroo rat, Stephens' kangaroo rat, northwestern San Diego pocket mouse, Los Angeles pocket mouse, and American badger. Small burrows are present at the percolation basins and could be active and support San Bernardino kangaroo rat, Stephens' kangaroo rat, northwestern San Diego pocket mouse, and Los Angeles pocket mouse. Due to the proximity of known populations of several sensitive burrowing mammals near the project site, avoidance measures in BIO-6 shall be followed to avoid potentially significant adverse impacts to burrowing mammals.

**Bats.** Structures at the WWTP site and well-established ornamental trees at the main facility and along portions of the force main pipeline alignment could support roosting bats. No bats were observed during the survey; nonetheless, bats could encroach structures on the site at any time. Vegetation north of the project site, within and adjacent to the Santa Ana River, provides high-quality habitat for many species of bats; therefore, BIO-7 includes precautions that shall be followed to avoid potentially significant adverse impacts to roosting bats.

## Mitigation Measures

**BIO-1. Preconstruction Nesting Bird Survey.** For construction in areas containing mature trees or potential habitat for nesting birds, and that is initiated between February 15 and September 1, a Qualified Biologist shall conduct a preconstruction nesting bird survey to determine if any nesting birds (including BUOW) are present on the work site. This survey would be initiated within 30 days before the start of construction. The survey report would include a finding of whether monitoring during construction would be required. Should nesting birds be found, an exclusionary buffer would be established by the Qualified Biologist around each nest site. Buffer size would be determined by bird species, with a 300-foot buffer standard for passerine birds. The Qualified Biologist would be responsible for surveys, providing nesting bird identification, implementation of identified protection measures, and coordination with applicable resource agencies. The buffer would be clearly marked in the field by construction personnel under guidance of the contractor's Qualified Biologist, in coordination with the United States Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW). Construction or clearing shall not be conducted within this zone until the Qualified Biologist determines that the young have fledged or the nest is no longer active.

During construction, if a nest is found during the nesting season, the Qualified Biologist will be contacted, and the site will be visited within 24 hours. Work will cease within 300 feet of the discovered nest.

**BIO-2. Preconstruction Nesting Raptor Survey.** A preconstruction survey for nesting raptors shall be conducted by a Qualified Biologist within the limits of project disturbance, 7 days prior to the onset of construction activities. Any active nest found during survey efforts shall be mapped on the construction plans. If nesting activity is present, the active site shall be protected until nesting activity ends to ensure compliance with Section 3503.5 of the California Fish and Game Code.

Nesting activity for raptors in the region normally occurs from February 1 to June 30. If no active nests are found, no further mitigation would be required. Results of the surveys shall be provided to CDFW.

To protect an active nest site, the following restrictions on construction would be required between February 1 and August 31 (or until nests are no longer active, as determined by a Qualified Biologist): (1) clearing limits shall be established a minimum of 300 feet in any direction from any occupied nest and (2) access and surveying shall be restricted within 200 feet of any occupied nest. Any encroachment into the 300-/200-foot buffer area around the active nest shall only be allowed if it is determined by a Qualified Biologist that the proposed activity shall not disturb the nest occupants. Construction during the non-nesting season can occur only at the buffer areas if a Qualified Biologist determines that fledglings have left the nest.

**BIO-3. Nesting Bird/Burrowing Owl Awareness Training.** For work within areas considered potential nesting habitat, the construction contractor(s) shall ensure that the workers' environmental awareness training program includes a short instructional presentation on nesting birds that is to be presented to all construction personnel at the start of earthwork or vegetation clearing activities.

**BIO-4. Tree Protection.** Trimming (or removal) of mature trees that are located near construction areas (within 50 feet) shall be conducted outside of the bird nesting season (February 15 to September 1). Trees to be protected near construction areas shall be flagged as an environmentally sensitive area by a Qualified Biologist. Any tree removal shall be replaced at a 1:1 ratio, and the City of Redlands Landscape Architect, or designated representative, shall approve the species proposed for planting on site.

**BIO-5. Preconstruction Burrowing Owl Survey.** A preconstruction survey shall be conducted by a Qualified Biologist within 30 days prior to any phase of construction in the areas identified as potential BUOW habitat and in accordance with the survey requirements detailed in the *Staff Report on Burrowing Owl* (CDFG, 2012). If no active burrows are found, no further mitigation shall be required.

Any active burrow found during preconstruction survey efforts shall be mapped and provided to the construction foreman so that all work is stopped in the immediate area of the occupied burrow. No disturbance shall occur within 160 feet of occupied burrows during the

nonbreeding season (September 1 through January 31) or within 250 feet during the breeding season (February 1 through August 31).

If BUOW must be moved away from the disturbance area, passive relocation is preferable to trapping. Relocation shall be implemented only during the nonbreeding season by a Qualified Biologist and would occur in coordination with CDFW. BUOW shall be excluded from burrows in the immediate impact zone by installing one-way doors in burrow entrances. One-way doors shall be left in place for 48 hours to ensure BUOW have left the burrow before excavation.

An effort shall be made to preserve foraging habitat contiguous with occupied burrow sites for each pair of breeding BUOW or for every single unpaired resident bird.

Additional compensatory mitigation for BUOW shall be required only if BUOW found within 250 feet of construction activities during preconstruction surveys cannot be avoided during construction. This may include offsite mitigation through the improvement or addition of BUOW habitat. In this event, further coordination with CDFW is required.

**BIO-6. Preconstruction Burrowing Mammal Survey.** A preconstruction survey shall be conducted within 30 days of ground disturbance for sensitive burrowing mammals (i.e., American badger, San Bernardino kangaroo rat, Stephen’s kangaroo rat, or Los Angeles pocket mouse) to avoid impacting these animals. Active burrows identified during the preconstruction survey shall be flagged for avoidance until authorization from USFWS and CDFW is obtained to move listed species from the construction area. In addition to flagging burrows for avoidance, an exclusionary buffer of at least 100 feet shall be set at the discretion of the Qualified Biologist to avoid potential impacts to sensitive burrowing animals.

**BIO-7. Bat Precautions.** During construction, should nightwork be required, lighting during the early evening twilight hours adjacent to open space areas shall be minimized or avoided to the greatest extent possible. Permanent night lighting for the project shall be directed away from natural open space areas and undeveloped lands.

Implementation of these mitigation measures would avoid or reduce significant adverse impacts to sensitive species that may be present at the project site. Impacts would be less than significant after mitigation.

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

The habitat types present at the site are classified as Disturbed/Developed with a small area of coastal sage scrub (CSS) habitat identified between the eastern edge of the main facility and Alabama Street. The project site does not contain riparian habitat. Vegetation at the WWTP main facility consists of ruderal vegetation and an array of landscaped areas in an area consisting of built structures, barren lands near structures, and roads. The area of the force main pipeline is dominated by introduced annual grasses. In the center of this area is an elevated plateau that contains a small area of CSS habitat, which includes native California buckwheat (*Eriogonum fasciculatum*), California sunflower (*Encelia californica*), purple sage (*Salvia leucophylla*), California sagebrush (*Artemisia californica*), giant wild-rye (*Elymus condensatus*), mulefat (*Baccharis salicifolia salicifolia*), and chaparral yucca (*Hesperoyucca whipplei*). Two patches of native plants, including California croton (*Croton californicus*), bur-sage (*Ambrosia cf. acanthicarpa*), fiddleneck (*Amsinckia sp.*), and stinging lupine (*Lupinus hirsutissimus*), are located just west of Alabama Street. Approximately 0.1 acre of the CSS habitat would be impacted by installation of the new force main pipeline. To minimize the impact, the 15-foot-wide limits of disturbance for installation of the pipeline will be clearly marked with environmentally sensitive area fencing. The orange construction environmentally sensitive area fencing will be installed to protect and preserve the CSS habitat located outside of the established limits of disturbance (see Figure 5).



Figure 5. Environmentally Sensitive Area Fencing

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The proposed improvements would not result in impacts to riparian habitat. No conflict with the Magnuson-Stevens Fishery Conservation and Management Act, Fish and Wildlife Coordination Act, or Rivers and Harbors Act, Section 10 would occur with the project.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X

No jurisdictional waters are located on the project site. Just north of the site is the Santa Ana River, which is considered Waters of the United States and Waters of the State, but which would be avoided by the proposed project. No impacts to jurisdictional waters would occur with the project.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		

Habitat connectivity is established where a wildlife movement corridor connects two blocks of native habitat. A wildlife corridor between such habitats allows genetic interchange between populations. The WWTP is located on developed land. While the site is adjacent to the Santa Ana River, the WWTP and pipeline alignment are fenced off, and neither location serves as a wildlife corridor. Therefore, the proposed project would not affect wildlife corridors.

The MBTA (50 Code of Federal Regulations [CFR] Section 10.13) implemented the 1916 convention between the United States and Great Britain for the protection of birds migrating between the United States and Canada. The MBTA made it illegal for people to "take" migratory birds, their eggs, feathers, or nests. Take is defined in the MBTA to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing or transporting any migratory bird, nest, egg, or part thereof. A migratory bird is any species or family of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle. In total, 836 bird species are protected by the MBTA, 58 of which are currently legally hunted as game birds that are subject to migratory game bird regulations issued by USFWS. BUOW are protected by the MBTA. The Bald and Golden Eagle Protection Act affords additional protection to all bald and golden eagles.

Initial Study/Mitigated Negative Declaration

To avoid impacts to migratory birds that may be nesting on the site, which include disturbances that cause the abandonment of active nests containing eggs and/or young, the City would implement mitigation measures BIO-1, BIO-2, BIO-3, and BIO-4 as described in Section 2.3.IV (a) above. With incorporation of these mitigation measures, impacts to migratory wildlife would be considered less than significant after mitigation.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X

The main facility of the Redlands WWTP contains an array of landscaped areas, with several mature trees that could support nesting birds. The project may require the trimming of ornamental trees but would not result in the need to remove any trees on the site. Rather, several trees would be planted along the eastern, southern, and western perimeter of the site. Thus, the project would not impact the City’s urban forest, which consists of public parks and street trees. No conflict with General Plan policies for trees and streetscapes and Chapter 12.52 of the Redlands Municipal Code regarding the protection of native and specimen trees, landmark trees, and public trees along streets and public places would occur with the project. There would be no impact associated with a conflict with local policies or ordinances protecting biological resources.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with the provision of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

The Upper Santa Ana River Land Management Habitat Conservation Plan (HCP) and the Upper Santa Ana River HCP include areas located immediately adjacent to the north and west of the project site; however, there would be no impact to these HCPs as a result of the project because all proposed improvements would be confined to the WWTP site. The project would not conflict with an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP. No impact would occur.

<b>V. Cultural Resources</b>				
Would the project:				
<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?				X

A Historic Property Identification Report was prepared for the proposed project, which evaluated project compliance with the NHPA. The report is provided in Appendix C, and the findings of the report are summarized below.

The Historic Property Identification Report included a records search to determine the extent of previous cultural resource investigations in the area. Archaeological site records, historic maps, listing of resources on the National Register of Historic Places (NRHP), California Register of Historic Resources (CRHR), California Points of Historical Interest, California Landmarks, National Historic Landmarks, Local Register of Historic Resources, and the Redlands Area Historical Society Explorer Web App were reviewed to determine whether any archaeological sites or architectural resources exist on or near the WWTP site. No cultural resources were identified within the project area from the records search.

An inventory of the built environment of the WWTP property was completed on May 6, 2019. Because the facility was originally built in 1962 and subsequent updates were completed in 1972, those features, buildings, and structures were documented as a single site, representing the historic core of the WWTP. An evaluation of WWTP for eligibility to the NRHP, the CRHR, and local designation as a City of Redlands Historic Resource was completed. The evaluation shows that the historic components of the WWTP consist of several buildings, structures, infrastructure, and features that are historic in age (dating back from 1962 and 1972) that are in good condition, and in several cases are still maintained, repaired, updated, and in use as a major functional facility for the WWTP. However, the facility has undergone several updates and additional construction episodes in 1987, 1989, 2003, and 2006. These subsequent updates to the facility have diminished the original composition of the facility. The WWTP site is currently composed of historic-age and modern buildings, structures, and infrastructure that are not tied to any individual person or significant event in history. None of the buildings and structures embody distinctive characteristics of a type, period, region, or method of construction. The surrounding area has also undergone modern development from agricultural fields and orchards into industrial warehouses, losing some of its setting and feeling. Thus, the Redlands WWTP site is not eligible for listing in the NRHP or the CRHR.

The design and materials of the WWTP are common for such facilities; do not contain a unique design or detailing; and are not good examples of a particular period or style. Therefore, it does not contribute to the historical or scenic heritage of the City, and it is not located within a historic and scenic or urban conservation district. Therefore, it is not eligible for designation as a City of Redlands Historic Resource.

Because the WWTP is determined to not be eligible for inclusion in the NRHP, the CRHR, or for local listing, the proposed improvements to the WWTP would not have an impact on historic properties.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		

As part of the Historic Property Identification Report, the cultural records search for the project identified 33 previous investigations that have been completed within 1 mile of the project site between 1977 and 2014. Of these, five investigations partially overlap portions of the site, but no resources were found within the site. The South Central Coastal Information Center records search identified 24 previously documented resources within 1 mile of the site, including 5 built environment resources, 19 historic-era sites, 1 prehistoric isolate, and 2 potentially historic resources. None of the previously recorded resources are located within the site.

No prehistoric resources were identified during the archaeological field survey of the WWTP site, including the pipeline alignment. The areas within the Santa Ana River drainage are not conducive towards prehistoric site preservation, despite the potential for accretional deposition. The soils that compose the terrace above the river in the southern portion of the WWTP property may have buried sites, but the property has had heavy disturbances from the construction and expansion of the WWTP over time, and intact subsurface archaeological deposits are not expected to exist; however, this does not preclude the possibility of undisturbed subsurface deposits.

In the unlikely event subsurface archaeological materials are identified during ground-disturbing activities, CUL-1 shall be implemented to prevent significant adverse impacts on archaeological resources.

**Mitigation Measures**

**CUL-1. Unanticipated Discovery of Archaeological Materials.** In the unlikely event subsurface archaeological materials are identified during ground-disturbing activities, work shall be halted within 60 feet of the find. A qualified archaeologist shall be retained to record and evaluate the find. If the unanticipated discovery is determined to be a historic property under Section 106 of the NHPA or a historical resource or unique archaeological resource under CEQA, the City shall notify the State Historic Preservation Officer (SHPO), consulting Native American groups (including the San Manuel Band of Mission Indians), and the Advisory Council on Historic Preservation within 48 hours of the discovery. The archaeologist shall develop a Monitoring and Treatment Plan in consultation with the City and affected tribes that satisfies the requirements of Section 106 of the NHPA and PRC Section 21083.2 and Section 15064.5 of the CEQA Guidelines. The Monitoring and Treatment Plan shall include recordation, onsite preservation, data recovery and curation, and/or other measures to protect or preserve the significance of the resource. Work shall not resume until the City has given authorization to resume work.

With incorporation of this mitigation measure into the project, impacts to archaeological resources would be considered less than significant after mitigation.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

The project site has been disturbed from past construction and improvements of the WWTP and is not expected to have human remains that may be uncovered during earthmoving activities. The project area is not otherwise known to be a previous cemetery or burial site. Therefore, the probability of encountering human remains during project construction is unlikely. To avoid potential impacts to unknown human remains that may be buried beneath the surface in the work area, the City would ensure that CUL-2 is implemented.

**Mitigation Measures**

**CUL-2. Unanticipated Discovery of Human Remains.** In the unlikely event human remains or funerary objects are encountered, all activity within the work location shall be halted within 100 feet of the find, and the City and the San Bernardino County Coroner notified immediately, in accordance with the procedures in CEQA Guidelines Section 15064.5(e), California Health and Safety Code Section 7050.5(b), and California PRC Section 5097.98. If the Coroner determines the remains to be of Native American origin, he or she shall notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the most likely descendant (MLD) to be consulted regarding treatment and/or repatriation of the remains. The MLD shall be granted access to examine the remains and then has 48 hours to provide recommendations for the treatment or reburial of the remains. If the MLD fails to make a recommendation within 48 hours of being granted access to the remains, the City shall rebury the remains in a location that would not be subject to further disturbance.

With incorporation of this mitigation measure, impacts to human remains would be considered less than significant after mitigation.

VI. Energy				
Would the project:				
Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?			X	

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The project would bring in additional equipment and systems that may increase energy use at the WWTP; however, the project proposes upgrades and replacements of old and outdated equipment and systems to improve energy efficiency throughout the facility. The improvements include new energy-efficient blowers, pumps, and electrical systems; an improved aeration control system; and new boilers/heat exchangers, among other upgrades. An approximate 10 to 12 percent increase in electrical power use (from 650,000 kilowatt hours [kWh] per month to 728,000 kWh per month) is expected due to additional equipment. The same or decreased natural gas use (currently 114 cubic feet per day) due to the continued use of digester gas for heating the boilers/heat exchangers is expected with the project. At the same time, no increases in the volume of wastewater that is treated at the WWTP would occur with the project. Also, no increase in the number of personnel operating the WWTP (i.e., 23 staff and 6 operator-in-training volunteers) and the number of chemical truck deliveries to the site would occur. Therefore, there would be no increase in energy use associated with personnel vehicles and delivery trucks traveling to the project site during long-term operations of the upgraded WWTP. Energy use during construction would include fossil fuels and electricity consumption that would be short-term during the 24-month construction period; therefore, no major increase in energy consumption is anticipated with the project, and energy consumption during construction would be minimal. The energy use of the project would not be considered wasteful, inefficient, or unnecessary.

For comparison purposes, the 41-acre WWTP site is only one of the facilities in Redlands (covering 23,177 acres), within San Bernardino County (covering 20,105 square miles) that is part of the 50,000-square-mile service area of the Southern California Edison Company (SCE) and the 24,000-square-mile service area of the Southern California Gas Company (SCG) that serve the WWTP. The electrical and natural gas demands of the WWTP represent a negligible portion of SCE's and SCG's energy resources. Impacts would be less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			x	

The Clean Energy and Pollution Reduction Act (Senate Bill [SB] 350) established clean energy, clean air, and greenhouse gas (GHG) reduction goals, including reducing GHG to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050. It also increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. The California Energy Commission (CEC) established building energy efficiency standards for new construction (as part of Title 24 of the California Code of Regulations or the California Building Code [CBC]), a building energy benchmarking program for large commercial and multi-family buildings; and a plan to increase efficiency in existing buildings. The CEC's Renewables Portfolio Standard (RPS) sets renewable energy procurement requirements for energy providers per SB 350. The Redlands Climate Action Plan was adopted by the City to reduce GHG emissions in the City and includes energy conservation measures.

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The project would utilize equipment and systems that meet current energy efficiency standards, in accordance with the CBC. As discussed above, the proposed improvements include upgrades and replacements of old and outdated equipment and systems to improve energy efficiency throughout the facility. The new boilers/heat exchangers would be using digester gas that is generated onsite to heat the digesters, before the excess gas is flared off. Currently, treated wastewater/recycled water is delivered to the Mountainview Power Plant and utilized for cooling and to irrigation users. With the full MBR system, recycled water from the WWTP would be available for additional onsite and offsite irrigation; thereby reducing the amount of potable water used for landscape irrigation purposes in Redlands. There is an existing 135.2-kilowatt solar photovoltaic system at the WWTP, although it is currently not in use. Thus, while construction activities would result in short-term energy use and the upgraded WWTP would result in a minor increase in energy use, this use would not conflict with or obstruct the programs of the CEC and the City's Climate Action Plan for increased use of renewable energy and energy efficiency. Impacts would be less than significant.

<b>VII. Geology and Soils</b>				
Would the project:				
<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X

The project site is in the northernmost portion of the Peninsular Ranges Geomorphic Province. This area is located along the Santa Ana River within the San Bernardino Valley, which is bounded by the San Andreas Fault Zone to the northeast and the San Jacinto Fault Zone to the southwest. The San Bernardino Valley is one of several blocks making up the Peninsular Ranges Geomorphic Province.

The project site is not located in an Alquist-Priolo Earthquake Fault Zone (State of California Fault Rupture Hazard Zone). The nearest Alquist-Priolo Earthquake Fault Zones are along the San Andreas Fault, which is located nearly 3.0 miles northeast of the site, and the San Jacinto Fault, which is located more than 4.0 miles southwest of the site. There are no known earthquake faults that run through or pass near the site. Thus, the project and the WWTP would not be exposed to hazards associated with surface rupture of a known earthquake fault. No impact would occur.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
ii) Strong seismic ground shaking?			X	

Due to the location of the site in relation to the San Andreas Fault and the San Jacinto Fault, strong seismic ground shaking during earthquakes on these faults could be experienced at the site. This could lead to damage to the buildings and infrastructure at the WWTP. Title 15 of the Redlands Municipal Code adopts the CBC with amendments, which requires individual projects to complete a site-specific soil and geotechnical engineering study and implement the recommendations addressing potential seismic hazards and geologic constraints. The CBC also includes building standards for ensuring the structural stability of buildings and infrastructure.

Because earthquake events cannot be avoided, ground shaking from earthquakes associated with nearby and distant faults may occur during the lifetime of the project. The project would be designed to withstand ground-shaking hazards through compliance with the seismic criteria in the CBC and the recommendations in the geotechnical engineering study for the project to reduce hazards from ground shaking. Therefore, the potential impact from seismic ground shaking is considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
iii) Seismic-related ground failure, including liquefaction?			X	

The project site is located just south of the Santa Ana River, and the Redlands General Plan 2035 shows that the site is in an area with high susceptibility for liquefaction, except for the southwestern section of the WWTP. In compliance with the Redlands Municipal Code, implementation of geotechnical recommendations and engineering standards in the CBC (as described in Section 2.3.VI [a][ii] above) would reduce potential impacts from liquefaction. The impact from seismic-related ground failure, including liquefaction, is considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
iv) Landslides?				X

The project site is located on relatively flat terrain within the San Bernardino Valley, although there is a slope that separates the aeration basins on the southern portion of the site at a slightly higher elevation from the WWTP facilities on the northern portion of the site. Earthen berms surround the WWTP main facility and the pipeline alignment. However, these slopes are not large or high enough to lead to landslides. There are no hills or mountainous areas in the vicinity of the WWTP. Thus, the potential for landslides is unlikely, and landslide hazards are not expected. No impact from landslides would occur.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?			X	

The project would include excavation and trenching for construction of the proposed site improvements, such as building and equipment foundations, utility and pipeline trenches, and planting areas. Ground disturbance would lead to the potential for wind or water erosion prior to paving or landscaping. The project would not result in development of any structures on sloped areas or within any area of potential slope failure. Rather, slope protection is proposed on the existing slope located north of the aeration basins, and landscaping is proposed in other areas. These site improvements would reduce long-term erosion potential at the site. The potential for soil erosion and loss of topsoil would be temporary and minimal during construction. Thus, impacts related to erosion would be less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	

No specific geologic hazards were identified in previous geotechnical investigations at the WWTP. The CBC also requires projects to be designed and constructed in accordance with the recommendations of the site-specific geotechnical investigation. A geotechnical report would be prepared for the project and the recommendations in the report used in the engineering design of the proposed improvements. With implementation of the recommendations in the geotechnical investigation, impacts related to onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse would be minimized. Impacts from unstable soils are considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	

Expansive soil, also called soils with high shrink-swell potential, is a common cause of foundation problems. Depending on moisture content in the ground and the amount of clay, expansive soils could experience changes in volume of up to 30 percent or more. These soils can cause lifting of

a building or other structure during periods of high moisture. Conversely, during periods of falling soil moisture, expansive soils could collapse and result in building settlement. Expansive soils also exert pressure on the vertical face of a foundation, basement, or retaining wall resulting in lateral movement. Soils that have expanded due to high ground moisture experience a loss of soil strength or “capacity,” and the resulting instability can result in various forms of foundation problems and slope failure.

Previous geotechnical investigations at the WWTP did not identify the presence of expansive soils. The United States Department of Agriculture (USDA) Web Soil Survey identifies surface soils at the site as Hanford sandy loam, Psamments, Fluvents, and Frequently Flooded Soils, and Tujunga loamy sand. These soils have low shrink-swell potential. Implementation of the recommendations in the geotechnical investigation for the project would prevent hazards associated with soil expansion. Therefore, impacts from expansive soils are considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

The WWTP treats wastewater through a combination of MBR and CAS systems and has limited wastewater generation from two toilets/locker rooms and a small kitchen onsite. The number of personnel at the site who would use the toilets and kitchen would not change; thus, no additional wastewater would be generated. Therefore, the proposed improvements would not increase the amount of wastewater treated at the site. Septic tanks are not proposed, and the project would install a state-of-the-art 9.5 MGD MBR system (an increase over the existing 6.0 MGD MBR system) and would eliminate the 3.5 MGD CAS system. Therefore, no impacts related to soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems would occur.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site of unique geologic feature?		X		

A Paleontological Inventory Report was conducted for the proposed project to determine potential impacts on paleontological resources. This report is provided in Appendix D and summarized below.

The project site would remain relatively flat after construction of the proposed improvements, and no change in a unique geologic feature would occur.

The project area is underlain by late Holocene-age very young wash deposits (Qw, Qw1) and middle Holocene-age young axial-channel deposits (Qya3), which both have low potential for containing fossil resources, and unmapped artificial fill. While there are no documented paleontological localities within the project area, older (e.g., Pleistocene-age) deposits may underlie the Holocene-age sediments and artificial fill at shallow or unknown depths at the site. Pleistocene-age geologic units have a moderate potential for paleontological resources.

Impacts on paleontological resources can generally be classified as either direct, indirect, or cumulative. Direct adverse impacts on surface or subsurface paleontological resources are the result of destruction by breakage and crushing as the result of surface-disturbing actions including construction excavations. In areas that contain paleontologically sensitive geologic units, ground disturbance has the potential to adversely impact surface and subsurface paleontological resources of scientific importance. Without mitigation, these fossils and the paleontological data they could provide if properly recovered and documented, could be damaged or destroyed, rendering them permanently unavailable to science and society.

Because numerous scientifically significant fossils have been recorded from Pleistocene-age deposits throughout San Bernardino and Riverside counties, excavation activities at depths greater than 8 feet below ground surface (bgs) at the site (for utility trenching) may potentially impact underlying paleontological resources, if present. Based on the depth of artificial fill at the site, which varies from 2 to 15 feet bgs and the maximum depth of planned ground-disturbing activities (up to approximately 15 feet), there is a potential for the discovery and disturbance of paleontological resources. Consistent with the policies and actions in the Redlands General Plan 2035, GEO-1 shall be implemented to avoid adverse impacts to significant paleontological resources during project construction.

### Mitigation Measures

**GEO-1. Paleontological Resources Monitoring and Mitigation.** Part-time monitoring (i.e., spot-checking) shall be conducted when ground-disturbing activities (i.e., utility trenching) impact sediments at 8 feet bgs or deeper to check for the presence of Pleistocene-age deposits. If Pleistocene-age deposits are observed at depth and would be impacted by planned excavations, then monitoring efforts shall be increased to full-time. If only artificial fill, late Holocene-age very young wash deposits (Qw, Qw1), and/or middle Holocene-age young axial-channel deposits (Qya3) are observed, then spot-checking can be reduced or ceased at the discretion of a qualified paleontologist in consultation with the City. Any subsurface bones or potential fossils that are unearthed during construction shall be evaluated, recorded, and reported by a qualified paleontologist.

Paleontological resources determined to be significant, or potentially significant, shall be subject to fossil recovery, laboratory analysis, and museum curation (through a curation agreement with the San Bernardino County Museum, or another appropriate repository).

With the implementation of this mitigation measure, impacts to significant paleontological resources would be less than significant after mitigation.

<b>VIII. Greenhouse Gas Emissions</b>				
Would the project:				
<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?			X	

GHGs consist of water vapor, O<sub>3</sub>, aerosols, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GHG are emitted by a variety of sources, including the combustion of fossil fuels by motor vehicles for transportation, power plants for electricity production, and various industries. In 2016, 429.4 million metric tons of CO<sub>2</sub> equivalent (CO<sub>2</sub>e) was generated in California, with transportation (41 percent) and industrial GHG emissions (23 percent) combined making up nearly two-thirds of the total GHG emissions.

CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O are the three major constituents of GHG. The other GHGs usually represent a small fraction of GHG emissions and may be discounted for most sources. GHGs have varying global warming potentials (GWP) (i.e., the potential of a gas to trap heat in the atmosphere). The reference gas for GWP is CO<sub>2</sub>, which has a GWP of one. CH<sub>4</sub> has a GWP of 21, which means that it has a global warming effect 21 times that of CO<sub>2</sub> on a mass basis. N<sub>2</sub>O has a GWP of 310 (Table 7). A CO<sub>2</sub>e representing the weighted total GWP of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O is calculated to assess the anticipated overall GHG effect of an activity.

**Table 7. Global Warming Potential of Greenhouse Gases**

<b>GAS</b>	<b>ATMOSPHERIC LIFETIME (YEARS)<sup>1</sup></b>	<b>GLOBAL WARMING POTENTIAL (100-YEAR TIME HORIZON)<sup>2</sup></b>
Carbon Dioxide (CO <sub>2</sub> )	50 to 200	1
Methane (CH <sub>4</sub> )	12	28
Nitrous Oxide (N <sub>2</sub> O)	114	265
HFC-23	270	12,400
HFC-134a	14	1,120
HFC-152a	1.4	138
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50,000	6,630
PFC: Hexafluoromethane (C <sub>2</sub> F <sub>6</sub> )	10,000	11,100
Sulfur Hexafluoride (SF <sub>6</sub> )	3,200	23,500
HFC = hydrofluorocarbons PFC = perfluorocarbons		

Sources: 1. IPCC, 2007; 2. IPCC, 2018.

When assessing the significance of impacts from GHG emissions on the environment, the lead agency should consider: (a) the extent to which the project may increase or reduce GHG emissions compared to the environmental setting; (b) whether the project emissions exceeds a threshold of significance that the lead agency determines applies to the project; and (c) the extent to which the project complies with regulations and requirements adopted to implement a statewide, regional, or local plan for reduction of GHG emissions.

While CEQA requires lead agencies to inform decisionmakers and the public about the potentially significant environmental impacts of a proposed project, scientists are still unable to identify the direct climate effects of projected GHG emissions from a specific project. Also, an individual project generally does not generate enough GHG emissions to significantly influence global climate change. Thus, it can be safely concluded that the individual contributions of most projects to climate change would be negligible to extremely minor and thus would be insignificant.

The California Air Resources Board (ARB) had a draft proposal for setting a GHG threshold of 7,000 metric tons of CO<sub>2e</sub> (MTCO<sub>2e</sub>) per year for operations (excluding transportation but including construction emissions amortized over 30 years) for projects that meet specified construction and transportation performance standards. SCAQMD staff recommended an interim GHG significance threshold for screening industrial projects to determine whether they could affect regional climate of 10,000 MTCO<sub>2e</sub> per year, with construction GHG emissions amortized over 30 years and added to operational GHG emissions. These thresholds have not been formally adopted but are used for comparison purposes below.

### **Construction**

Construction of the proposed project would generate a relatively minor amount of GHG emissions due to the types and sizes of improvements, the use of prefabricated buildings, the short construction period of 24 months, and the amortization of construction GHG emissions over 30 years. GHG estimates during construction were generated as part of the air quality modeling and show that when amortized over 30 years, these emissions represent relatively minimal levels and would not exceed the draft thresholds of ARB and SCAQMD.

### **Operations**

Operation of the WWTP results in direct emissions, from the biological processes, of GHG such as CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O, as well as indirect emissions resulting from energy generation. CO<sub>2</sub> is of biogenic origin, which means short cycle or natural sources of atmospheric CO<sub>2</sub> cycles from plants to animals to humans as part of the natural carbon cycle and food chain. Photosynthesis produced short-cycle CO<sub>2</sub> removes an equal mass of CO<sub>2</sub> from the atmosphere that returns during respiration or wastewater treatment. Thus, it does not contribute to global warming. N<sub>2</sub>O is associated with the degradation of nitrogen components in wastewater (e.g., urea, nitrate and protein). Wastewater and sludge produce CH<sub>4</sub> if it degrades anaerobically. The extent of CH<sub>4</sub> production depends primarily on the quantity of degradable organic material in the wastewater, the temperature, and the type of treatment system.

Estimates of GHG emissions from the WWTP are provided in the Redlands Climate Action Plan. Existing 2015 GHG emissions were 2,222 MTCO<sub>2e</sub>, projected 2030 GHG emissions are 3,138 MTCO<sub>2e</sub>, and projected 2065 GHG emissions are 3,208 MTCO<sub>2e</sub> due to growth in the City.

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During long-term operations, the WWTP would retain its current capacity of 9.5 MGD. The volume of wastewater treated at the WWTP would also remain unchanged with the project (currently estimated at 5.8 MGD). Thus, emissions of N<sub>2</sub>O and CH<sub>4</sub> from wastewater treatment processes would not change with the project. Also, no change in the number of employees or delivery trucks to the WWTP would occur with the project. In addition, no increases in natural gas consumption at the WWTP would occur because the digester gas would continue to be used for heating the boilers/heat exchangers.

Using EPA’s Greenhouse Gas Equivalencies Calculator, the 10 to 12 percent increase in electrical use of the WWTP (78,000 kWh per month) that is expected with the proposed upgrade would generate approximately 55.2 MTCO<sub>2e</sub> per month or 662.4 MTCO<sub>2e</sub> per year of additional GHG emissions. Therefore, the project would not result in an increase in GHG emissions at the upgraded WWTP that would come close to the 7,000 or 10,000 MTCO<sub>2e</sub> thresholds that have been developed by ARB and recommended by SCAQMD. Proposed trees along the site perimeter would also sequester a portion of the GHG emissions. Thus, GHG emissions from construction and operation of the proposed improvements would be less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Climate change and GHG emissions have been addressed through a series of State legislation and Executive Orders, including the following:

- *EO S-3-05* – Sets emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.
- *California Global Warming Solutions Act (AB 32)* – Requires that the State reduce emissions of GHG to 1990 levels by 2020.
- *Scoping Plan* – Provides guidance for local communities to meet AB 32 and EO S-3-05 targets. The Scoping Plan adopted a quantified cap on GHG emission representing 1990 emission levels, instituted a schedule to meet the emission cap, and developed tracking, reporting, and enforcement tools to assist the State in meeting the required GHG emissions reductions.
- *EO S-3-15* – Established an interim target to reduce GHG emissions to 40 percent below 1990 levels by 2030. SB 32 codified the 2030 GHG emissions reduction target.
- *EO S-1-07* – Mandates a Statewide goal be established to reduce carbon intensity of California’s transportation fuels by at least 10 percent by 2020 – Low Carbon Fuel Standard (LCFS).

- *Title 24 (CBC)* – Established standards to allow consideration and possible incorporation of new energy-efficiency technologies and methods. It also includes the California Green Building Standards Code (or CalGreen Code), which requires that new buildings reduce water consumption, increase system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials.
- *AB 1493* – Requires ARB to develop and adopt regulations that reduce GHG emitted by passenger vehicles and light-duty trucks.
- *Climate Change Scoping Plan Update (2017)* – Recommends that local governments target 6 MTCO<sub>2e</sub> per capita per year in 2030 and 2 MTCO<sub>2e</sub> per capita per year in 2050.

Most of these regulations do not specifically address the WWTP. The project would comply with applicable standards in Title 24 and the CalGreen Code; therefore, no conflict with State regulations for GHG reduction would occur with the project.

The Redlands Community Sustainability Plan (RCSP) was a conceptual framework intended to guide the City's efforts to become increasingly sustainable. Past accomplishments include use of recycled water for power plant cooling, ongoing improvements to nonpotable water production, treatment, and distribution, and installation of solar photovoltaic panels at the WWTP, among others, that have reduced the City's GHG emissions. The RCSP included 10 sustainability themes and key goals and actions for each theme. Overall, the project is consistent with several of the goals identified in the RCSP. Proposed upgrades to operational systems and related improvements at the WWTP are consistent with sustainability goals related to energy efficiency and conservation, water and wastewater systems, and waste reduction and recycling. In addition, the planting of approximately 50 trees as part of the site improvements is consistent with the RCSP theme for storing and offsetting carbon emissions through enhancements to the urban forest.

The Redlands Climate Action Plan reinforces the City's commitment to reducing GHG emissions and demonstrates how the City will comply with California's GHG emission reduction standards. Based on an emissions inventory for 2015 and forecasted 2035 emissions according to the City's General Plan, the City will meet its GHG per capita targets for 2030 and 2035 with implementation of the policies and actions in its General Plan (e.g., bikeway system improvements, pedestrian connectivity, traffic calming, parking facilities, and transportation improvements) and compliance with the RPS, CBC building efficiency standards, and 75 percent solid waste diversion under AB 341. Optional measures to further reduce GHG emissions include the use of photovoltaic systems, energy efficiency retrofits, facility commissioning, efficient lighting standards, and increased zero-emissions vehicles. The WWTP has a solar photovoltaic system that can be used for plant operations, and the project includes equipment replacement for energy efficiency and would comply with the CBC and CalGreen Code. Thus, the WWTP and the proposed improvements support the Climate Action Plan and would not conflict with the City's GHG reduction policies and actions.

Based on the type and size of improvements and anticipated GHG emissions (discussed in Section 2.3.VIII [a] above), the proposed project would not have the potential to generate GHG emissions that could substantially influence climate change. The project would not conflict with applicable State and local plans, policies, or regulations adopted to reduce GHG emissions in the City. Furthermore, the project supports the principles of sustainability by improving energy

efficiency at the WWTP; continued use of digester gas for the boilers/heat exchangers, and recycled wastewater for use in power plant cooling and landscape irrigation. Impacts on GHG plans, policies, or regulations would be less than significant.

<b>IX. Hazards and Hazardous Materials</b>				
Would the project:				
<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	

The WWTP currently uses hazardous materials in the wastewater treatment process. Several aboveground storage tanks store various chemicals onsite: diesel gasoline (1,350-gallon tank), chlorine/sodium hypochlorite (4,500-gallon tank), sodium bisulfite (120-gallon tank), citric acid (900-gallon tank), and sodium hydroxide (4,000-gallon tank). These hazardous materials are transported, stored, used, and handled at the site in accordance with applicable federal, state, county, and local regulations.

Operation of the upgraded WWTP would not increase the amount of wastewater treated at the site nor increase the use of existing hazardous materials at the site. A new ferric chloride dosing pump is proposed but would be installed and used in accordance with applicable federal, state, county, and local regulations. Thus, the project would not create a significant hazard to the public, with compliance with applicable hazardous materials regulations. The impact of the project related to hazardous materials is considered less than significant.

<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	

As discussed above, the WWTP would continue to transport, store, and use diesel gasoline, chlorine/sodium hypochlorite, sodium bisulfite, citric acid, and sodium hydroxide. No increase in the use of these hazardous materials would occur with the project. Ferric chloride would be used in limited quantities and transported, stored, and used in accordance with applicable regulations. Impacts are considered less than significant.

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Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X

There are no schools within 0.25 mile of the WWTP. The nearest school is Citrus Valley High School, which is located approximately 0.5 mile southeast of the WWTP. This high school is separated from the WWTP by SR-210 and would not be adversely affected by operations at the WWTP. No impact would occur.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		X		

A search of environmental records was conducted in May 2021 to identify known releases of regulated substances, and any use, storage, treatment, generation, disposal, or handling of hazardous substances. The search included review of EPA's Envirofacts, California Department of Toxic Substance Control's (DTSC) EnviroStor, and RWQCB's GeoTracker databases.

Review of the EnviroStor database shows that the site is not listed in government databases as a hazardous material site. The nearest hazardous material site is the California Street Landfill, which is west of the WWTP, across Nevada Street. The groundwater beneath the landfill is impacted by perchlorate, tetrachloroethene (PCE), trichloroethene (TCE), and 1,2-dibromo-3-chloropropane (DBCP). In 2004, the City submitted a report that demonstrated that all groundwater contamination originated from sources other than the landfill. No further action is required. Other EnviroStor sites are located farther (more than 0.5 mile) from the site and would not pose environmental concerns at the site.

Review of the GeoTracker database shows there are no Leaking Underground Storage Tanks (LUST) Cleanup Sites, Permitted Underground Storage Tanks (USTs), DTSC Hazardous Waste Sites, Waste Discharge Requirement (WDR) sites, Cleanup Program Sites, or Military Cleanup Sites within 0.5 mile of the WWTP.

The WWTP is listed in the Envirofacts database as a regulated facility. In addition, there are several other Envirofacts sites within 0.5 mile of the WWTP. The Redlands City California Street Landfill is identified as a Resource Conservation and Recovery Act (RCRA) small quantity generator. Other sites include Burlington Store #517 located at 27582 Pioneer Avenue; Home

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Depot at 27352 River Bluff Road; Kuehne Nagel Inc. at 9425 Nevada Street; IDS USA Redlands at 26635 Pioneer Avenue; and Lamps Plus at 9425 California Street. No violations have been identified for these sites, nor do they pose an environmental concern at the project site.

Review of information on underlying groundwater resources identified the presence of contaminant plumes in the Upper Santa Ana River watershed. The Crafton-Redlands plume is located south of the site, and the Norton plume is located west of the site; neither plume underlies the site. The project would confine the proposed improvements to the WWTP site and would not require excavation activities that would impact the underlying groundwater (estimated at 151.4 feet bgs). The WWTP would also continue to be operated and maintained in accordance with pertinent hazardous material regulations. Thus, the project would not create a significant hazard to the public or the environment. Impacts would be considered less than significant.

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

The proposed improvements would be located within the WWTP site, which is approximately 2.6 miles to the west from the Redlands Airport and approximately 0.6 mile to the southeast from the San Bernardino International Airport runway. The WWTP site is not within the boundaries of the designated Area of Special Compatibility Concern for the Redlands Airport but is within the airport influence area for the San Bernardino International Airport; however, no airport land use compatibility plan has been adopted for the San Bernardino International Airport. At the same time, the project does not change the land use of the site. The proposed structures would generally be at the same or lower heights as existing digesters at the WWTP (25 feet tall); therefore, the proposed structures would not result in obstructions to navigable air space, as defined in Federal Aviation Regulation (FAR) 77.

A variety of land uses, facilities, and structures near airports can create wildlife attractants that pose a threat to aircraft operations. These attractants include water and wastewater treatment facilities, stormwater management facilities, and agricultural areas. Federal Aviation Administration (FAA) *Advisory Circular 150/5200-33B (Wildlife Hazard Attractants On or Near Airports)* identifies separation distances within which hazardous wildlife attractants should be avoided, eliminated, or mitigated. A 5-mile radius for approach, departure, and aircraft operating in a standard traffic pattern is recommended by FAA.

The project would not change the land use of the site and would not increase the amount of wastewater treated at the site. The proposed new structures and equipment would also decrease the potential for attracting wildlife hazards to the site that may affect adjacent aircraft operations (due to the change from bare soils to paved areas, structures and equipment in regular use, and

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the increased presence of personnel in these areas). Improvements to the peak storage ponds, aeration basins, and percolation ponds would not increase their footprints to serve as wildlife attractants. While trees would be planted as part of the project, which may attract wildlife, these trees would not be located within the main aircraft flights patterns around the Redlands Airport and the San Bernardino International Airport. There are existing trees on and near the site, and additional trees would not become a major airport or aircraft hazard. Potential impacts related to airport hazards would be less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	

The proposed upgrades and improvements would be confined to the WWTP site (e.g., main facility and force main pipeline alignment) and would not affect emergency response and evacuation at adjacent streets or the surrounding areas. Partial or complete street closure would be limited to Alabama Street when the force main pipeline is installed beneath the street during project construction. Flaggers and/or detour signs would be provided as necessary. Landscaping, entryway monument, and gate improvements would occur at the WWTP main entrance at Nevada Street, but there is a secondary entrance to the north where no improvements are proposed. The proposed work would only partially block the main gate for a limited time period. Therefore, impacts on emergency response or evacuation plans would be less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

The California Department of Forestry and Fire Resources (CALFIRE) has prepared Fire Hazard Severity Zone Maps for the State, and the project site is in a Non-Very High Fire Hazard Severity Zone. The proposed improvements would be confined to the WWTP site and pipeline alignment and would also be constructed in accordance with the CBC, including the National Fire Protection Association (NFPA) 820 and National Electrical Code (NEC) 500 standards. Thus, the project would not result in any increase in the fire hazard at or near the project site. Impacts from wildland fires are considered less than significant.

<b>X. Hydrology and Water Quality</b>				
Would the project:				
Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?				X

The proposed project would improve wastewater treatment and system efficiency at the WWTP. Conversion of the facility to a full MBR system would result in treated wastewater/recycled water that meets higher water quality standards and allows the use of recycled water for landscape irrigation. The WWTP would continue to operate in accordance with the WDR for the facility (Order No. R8-2008-0040), as issued by the Santa Ana RWQCB. With compliance with the WDR, impacts related to water quality standards or WDRs would not occur.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	

EPA's Sole Source Aquifer (SSA) Program was established under Section 1424(e) of the Safe Drinking Water Act (SDWA), 44 *Federal Register* (FR) 52751, as published on September 10, 1979. Since 1977, this program has been used by communities to help prevent contamination of groundwater from federally funded projects. The SSA program allows for EPA environmental review of any project that is financially assisted by federal grants or federal loan guarantees. These projects are evaluated to determine whether they have the potential to contaminate a sole source aquifer. The project site is not within the area designated by EPA as an SSA. No impact on an SSA would occur with the project.

The project site is underlain by the Bunker Hill groundwater subbasin of the Upper Santa Ana Valley groundwater basin. This subbasin is part of the San Bernardino Basin Area. Groundwater levels at the site were estimated at 175 feet bgs in 1972 and at 86 feet bgs in 1987. A well nearest the site had groundwater levels 151.4 feet bgs in fall 2018.

The project does not propose groundwater wells or excavation that would extend into the underlying groundwater. Maximum excavation depth is set at 15 feet. No major increase in water use at the WWTP would occur with the project because no increase in the volume of wastewater treated would occur with the project and no additional personnel would be stationed at the site. Irrigation of the proposed landscaping and trees along the site perimeter would utilize a minimal amount of recycled water from the WWTP. In addition, the San Bernardino Basin Area is under

adjudication by the Western-San Bernardino Watermaster, which manages groundwayer resources in the San Bernardino Basin Area and regulates the amount of groundwater that is extracted. Thus, the project would not impede sustainable groundwater management of the underlying groundwater basin, and the project would not result in depletion of groundwater supplies. Impacts to groundwater supplies are considered less than significant with the project.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site?			X	

The project site is on an alluvial terrace on the south side of the Santa Ana River and is generally flat with a slight slope from south to north. No work within the Santa Ana River is proposed by the project. Earthen berms along the boundaries of the main facility prevent erosion or siltation into the Santa Ana River. The proposed buildings and equipment would increase impervious areas on the site and reduce potential erosion. Landscaping is also proposed at the central section of the WWTP to prevent slope erosion. Erosion may occur during construction when ground-disturbance and excavation and trenching activities are ongoing, but this would be temporary. Erosion control measures would be implemented during construction to minimize the potential for sediment to be picked up and transported offsite or by runoff. Impacts would be less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
ii) Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off- site?			X	

**Floodplain Management (Executive Orders 11988, 12148, and 13690).** Floodplains are corridors of low, level ground on one or both sides of a stream channel and are subject to either periodic or infrequent inundation by floodwater. Inundation dangers associated with floodplains have prompted federal, state, and local legislation that limits development in these areas largely to recreation and preservation activities. Executive Orders 11988, 12148, and 13690, *Floodplain Management*, requires actions to minimize flood risks and impacts. Under these orders, development alternatives must be considered and building requirements must be in accordance with specific federal, state, and local floodplain regulations.

The project would not result in any alteration of existing drainage patterns at the WWTP. New buildings and equipment would be located at small and scattered locations, and stormwater at these

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locations would flow into adjacent areas with bare soils for ground percolation. Surface runoff flow rates and volumes would not significantly increase over existing conditions or result in any increase in flooding. As shown in Figure 6, the northern sections of the WWTP main facility and percolation ponds are within the 500-year floodplain, but the 100-year floodplain associated with the Santa Ana River is outside and north of the project site and on a portion of Alabama Street. Appendix E has the Federal Emergency Management Agency (FEMA) flood zone maps.

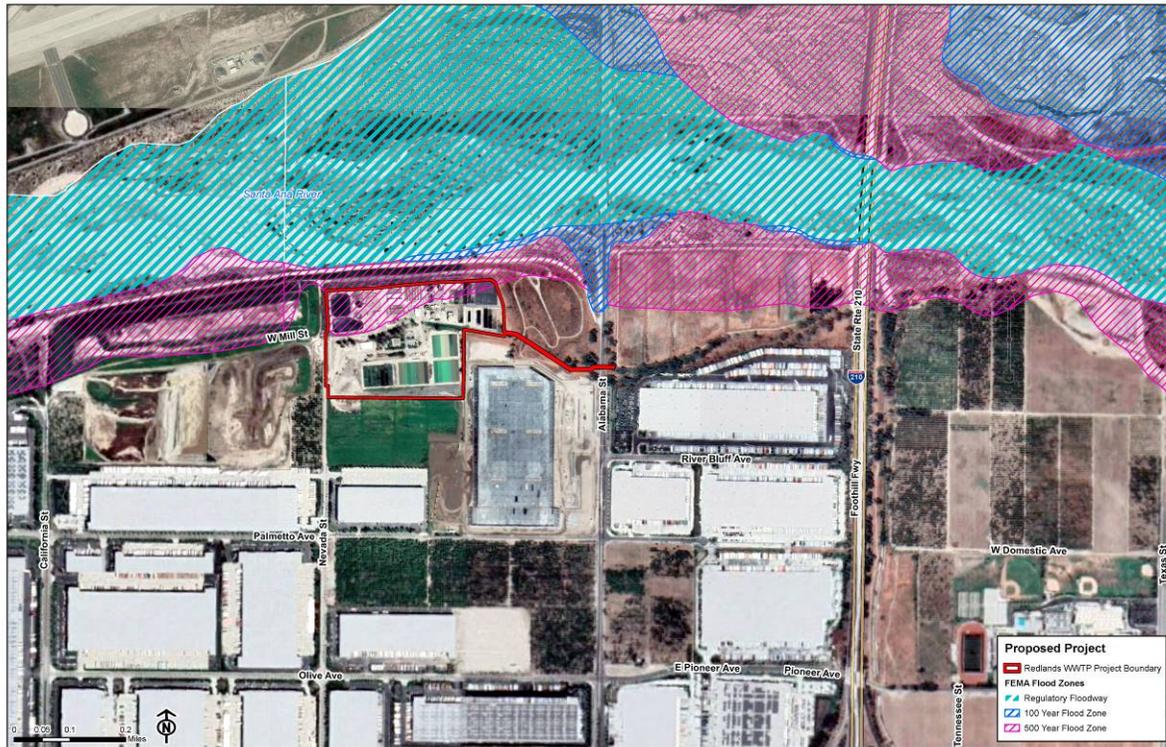


Figure 6. FEMA Flood Zones near Redlands WWTP

The proposed improvements to the peak storage ponds, MBR system, aeration basins, secondary clarifiers, and effluent pump station would be located within the limits of the 500-year floodplain, but no other improvements are proposed within the 500-year floodplain or the 100-year floodplain. With the limited size of the three prefabricated structures (i.e., 400 square feet each) in this area, stormwater would flow into the adjacent unpaved area for ground percolation. No change in the floodplain limits would occur with the project, and impacts related to flooding would be less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	

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In compliance with its municipal National Pollutant Discharge Elimination System (NPDES) stormwater permit (MS4 Permit No. CAS618036, RWQCB Order No, R8-2010-0036), the City owns, operates, and maintains a master-planned storm drainage system within its corporate boundaries. The system consists of storm drains, stormwater basins, and pump stations that discharge to drainage channels, creeks, and the Santa Ana River, retaining and infiltrating as much runoff as possible on individual sites.

The proposed project would generate stormwater runoff from an increase in impervious surface area; however, the proposed improvements would be located on paved areas or at small, scattered locations and would disturb less than 3 acres of land. Stormwater from new impervious areas would flow into adjacent areas with bare soils for ground percolation. Surface runoff flow rates and volumes would not significantly increase over existing conditions nor exceed the capacity of existing or planned stormwater drainage systems. The project would not contribute a substantial additional source of polluted runoff because no change in land use or operations is proposed, and no increase in wastewater volume that is treated at the WWTP would occur with the project. No significant adverse impacts on existing or planned stormwater drainage systems and no new sources of stormwater pollutants would occur. Impacts would be less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
iv) Impede or redirect flood flows?			X	

The site is located outside the 100-year floodplain, as shown in Figure 5. The project proposes improvements at scattered locations throughout the site and would direct runoff into adjacent areas with bare soils for ground percolation. This would not result in the obstruction or redirection of flood flows at the site. Stormwater flows at the site would continue to be primarily subject to ground percolation, with runoff flowing towards low-lying areas and into the aeration basins. Impacts related to redirection of flood flows would be less than significant with the project.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X

The site is not located near the coast; therefore, it is not subject to the Coastal Barriers Resources Act and Coastal Zone Management Act. The project would not be exposed to flood hazards associated with a tsunami (sea waves).

There is no large body of water near the site that may result in a seiche during an earthquake event. Flooding associated with seiches, which are wave-like oscillations of water in an enclosed

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basin caused by earthquakes, high winds, or other atmospheric conditions, is unlikely to occur at the project site due to shallow depths and design of the onsite ponds and basins.

The site is also outside the 100-year floodplain. Some proposed improvements would be located within the 500-year floodplain, but fine screens wastes would be disposed of at the nearby landfill. Screened effluent would be conveyed to the MBR basins for further treatment. In the event of a major storm, floodwaters that enter the fine screens would go through the MBR treatment process prior to reuse at the cooling plant or for landscape irrigation. Thus, no impact related to the release of a pollutant in a flood hazard, tsunami, or seiche zone would occur with the project.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

The project site is located south of the Santa Ana River, and the water quality control plan (Basin Plan) for the Santa Ana River identifies the beneficial uses of surface and groundwater resources within this watershed. The site is within Reach 5 of the Upper Santa Ana River, which has beneficial uses for Municipal and Domestic Supply, Agricultural Supply, Groundwater Recharge, Water-contact Recreation, Non-contact Water Recreation, Warm Freshwater Habitat, Wildlife Habitat, and Rare, Threatened and Endangered Species. Water quality objectives are also provided in the Basin Plan for the protection of water quality and to prevent antidegradation.

The project does not propose any improvements in the Santa Ana River and would not result in any discharges into the river. The site overlies the Bunker Hill groundwater subbasin, which has beneficial uses for Municipal and Domestic Supply, Agricultural Supply, Industrial Service Supply, and Industrial Process Supply. The proposed improvements would not extend into the underlying groundwater, and no increases in water use would occur with the upgraded WWTP; therefore, no conflict with the beneficial uses and water quality objectives in the Basin Plan would occur with the project.

As indicated above, the site overlies groundwater resources in the San Bernardino Basin Area, which is adjudicated by the Western-San Bernardino Watermaster to regulate the amount of groundwater that is extracted. No direct impacts to groundwater resources would occur with the project; therefore, the project would not impede sustainable groundwater management of the underlying groundwater basin.

Impacts on the Basin Plan for the Santa Ana River and the groundwater management plan for the San Bernardino Basin Area would not occur with the project.

XI. Land Use and Planning				
Would the project:				
Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X

The WWTP site is not located within an established community, and there are no residential uses near the site. The nearest residence is located approximately 0.7 mile to the southeast, east of SR-210. The proposed improvements would be located within the WWTP site and would not extend beyond the site boundaries. No impact on established communities would occur with the project.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

Land use plans, policies, and regulations of the City that are applicable to the site include:

**Redlands General Plan 2035.** The City of Redlands General Plan 2035, adopted on December 5, 2017, sets the Community Vision for the City through a set of principles and actions to meet its vision for a Distinctive City, Prosperous Economy, Livable Community, Connected City, Vital Environment, Healthy Community, and Sustainable Community. The WWTP site has a land use designation of Public/Institutional and Linear Park.

**East Valley Corridor Specific Plan.** The East Valley Corridor Specific Plan regulates development at the northwestern section of Redlands that is part of the East Valley Corridor planning area, which includes land in the County of San Bernardino and the cities of Redlands and Loma Linda. The southwestern section of the WWTP site is within the boundaries of the East Valley Corridor Specific Plan. The Specific Plan designates this southwestern section as Public/Institutional (EVPI), which allows agriculture, government offices and facilities, and sewage treatment plants.

**Zoning Ordinance.** Title 18 (Zoning Regulations) of the Redlands Municipal Code serves as the City's Land Use Zoning Ordinance and provides regulations for permitted land uses and development regulations for every parcel in the City. The WWTP site is zoned Open Space and Public Institutional.

The project would upgrade the existing WWTP and would not change the land use of the site. The project would not conflict with land use plans, policies, regulations, or ordinances. No General Plan Amendment or Zone Change is needed to implement the project. No conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project including, but not limited to, the general plan, specific plan, local coastal program, or zoning

ordinance, adopted for the purpose of avoiding or mitigating an environmental effect would occur. No land use impacts are expected with the project.

<b>XII. Mineral Resources</b>				
Would the project:				
<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			X	

The California Department of Oil, Gas, and Geothermal Resources' (DOGGR) Well Finder shows there are no oil, geothermal, or gas wells (either active, inactive, plugged, or abandoned) on or near (within 1.0 mile) the site.

Based on the Mineral Land Classification of the Greater Los Angeles Area prepared by the California Department of Conservation, the project area is in the San Bernardino Production-Consumption region, an area containing regionally significant mineral resources (e.g., sand and gravel resources). The WWTP site and surrounding areas are designated as Mineral Resource Zone (MRZ) - 2, an area where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists, primarily due to the location of the Santa Ana River just north of the site. While the project site may be underlain by sand and gravel resources, the site is developed, and the proposed improvements would be within the boundaries of the existing WWTP. Thus, it is unlikely that the site would be subject to mining operations in the future. At the same time, the project would not obstruct ongoing or future mining operations in the Santa Ana River and adjacent areas. Thus, the impact of the project on the availability of known regionally significant mineral resources is less than significant.

<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			X	

The Redlands General Plan 2035 reflects the California Department of Conservation's MRZ-2 classification of the site and surrounding area, with the percolation ponds having regionally significant Portland cement concrete-grade aggregate resources. While the project would be on an area with locally important mineral resources (e.g., sand and gravel), the project would occur within a site that is now developed with wastewater treatment facilities. The improvements to the existing WWTP facilities would not affect the underlying mineral resources or access to these resources. Because there are no mining operations adjacent to the site, the project would also

not interfere with existing mining operations in the area. Therefore, impacts to local mineral resources are considered less than significant.

<b>XIII. Noise</b>				
Would the project result in:				
<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	

The Redlands General Plan includes a Healthy Community chapter that addresses noise. This chapter includes principles to reduce noise from mobile sources; eliminate noise problems; make new development compatible with the noise environment; guide the location of noise sources; and regulate development around the Redlands Airport. Industrial uses are considered “Clearly Compatible” in areas with noise levels up to 75 decibels (dB) Community Noise Equivalent Level (CNEL) and “Normally Compatible” in areas with noise levels 80 dB CNEL and above. There is no exterior noise standard and a 60-dB CNEL interior noise standard for manufacturing, warehousing, wholesale, and utilities land uses.

Chapter 8.06, Community Noise Control, of the Redlands Municipal Code prohibits “loud, unnecessary or unusual noise which disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to a reasonable person of normal sensitivity in the area”. The ordinance sets exterior noise limits of 75 A-weighted decibels (dBA) in industrial areas, which cannot be exceeded for more than 30 minutes in any hour; with the limit plus 20 dB not permitted for any period of time. The ordinance also sets interior noise limits of 60 dBA in industrial areas. Lower exterior noise limits are set for residential and commercial uses, but there are no residential and commercial uses near the site. Construction and/or demolition activities are only allowed between 7:00 a.m. and 6:00 p.m. on weekdays and Saturdays but not on Sundays or holidays, except for emergency work.

The WWTP site is in an industrial area where industrial sources of noise such as outdoor activities by trucks, machinery, and pumps characterize the noise environment. Adjacent land uses include the Santa Ana River to the north, the California Street Landfill to the west, SR-210 to the east, and warehouses, agricultural fields, and vacant land to the south. Farther south and southwest of the site are various industrial uses and warehouses. The nearest noise-sensitive uses, single-family residences, are located approximately 0.7 mile to the southeast.

The project would not bring in a noise-sensitive land use to the WWTP. The project site is also not located in an area near noise-sensitive land uses and would not be adversely affected by airport operations or aircraft noise from the Redlands Airport and San Bernardino International Airport.

Construction equipment that could be used at the site include graders, dozers, dump trucks, front end loaders, and trenching machines. Generally, without barriers, construction equipment can generate noise levels of up to 86 dB at 50 feet and 83 dB at 100 feet. Under the City’s Noise Ordinance, permitted construction activities between 7:00 a.m. and 6:00 p.m. are exempt from community noise standards. Construction of the proposed improvements would occur during the daytime hours on weekdays and Saturdays, in compliance with the City’s Noise Ordinance. Construction noise impacts would be temporary and would not adversely affect adjacent land uses, including the Santa Ana River, Home Depot warehouse, vacant land/agricultural land, and the California Street Landfill. The noise intensity and duration of construction equipment operations, the lack of noise-sensitive receptors near the WWTP, and the distances between the site and nearby land uses would prevent violation of the City’s noise regulations.

Operational noise generated by the upgraded WWTP would include noise from pumps, blowers, and other wastewater transport and treatment equipment, from onsite activities, and from vehicles traveling to and from the site. Several of these noise sources would be in enclosed buildings or would have covers; therefore, they would not generate substantial amounts of noise. Onsite maintenance activities would occasionally generate noise, but these infrequent events would not add measurably to long-term average noise levels. Earthen berms separate the WWTP from adjacent areas, breaking the line-of-site between onsite noise sources and adjacent offsite areas.

No increase in the amount of wastewater treated; the number of personnel stationed at the site; or the number of truck deliveries to the site would occur with project; therefore, no increase in vehicle noise generation would occur. In addition, there are no noise-sensitive receptors near the site that would be adversely impacted by onsite operational noise. Project-generated noise would not exceed the standards established in the Redlands General Plan or Noise Ordinance; therefore, impacts related to noise from operation of the upgraded WWTP would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	

Compacting and grading equipment, including small-diameter pile drivers and trenchers, may generate vibration temporarily during construction activities. Groundborne vibration is measured using the Federal Transit Authority (FTA) annoyance threshold of 72 VdB (vibrational velocity level). Due to the distance of the nearest residences (0.7 mile), intermittent and short-term vibration from construction activities at the WWTP are not expected to affect residents in the area. Impacts from excessive groundborne vibration or groundborne noise would be less than significant.

As discussed in Section 2.3.Xiii (a) above, during construction activities, the impact of the temporary increases in noise would be less than significant. No new long-term noise-generating activities above existing ambient noise levels in this industrial zone would occur from the project. Equipment and pump stations generally would be enclosed in buildings or covered and would not

emit substantial operational noise. The proposed improvements would not permanently change the existing ambient noise level. Impacts related to groundborne noise and vibration would be less than significant.

<b>XIV. Population and Housing</b>				
Would the project:				
<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X

The project proposes an upgrade of the WWTP to improve operational efficiency and reliability but would not increase the 9.5-MGD capacity of the facility. Rather, the project would change the wastewater treatment from a combination of MBR and CAS systems to a full MBR system; therefore, the project would not increase wastewater services in Redlands that may induce substantial or unplanned population growth. No change in the number of personnel (i.e., 23 staff and 6 operator-in-training volunteers) at the WWTP would occur with the project; therefore, no impacts related to growth inducement are expected.

<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

There are no dwelling units on the site or in the surrounding area. The project would not displace any housing units, households, or residents. In addition, no businesses or employees would be displaced by the project. Therefore, the project would not result in any impacts to people or housing nor require replacement housing.

**XV. Public Services**

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

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?			X	

The Redlands Fire Department provides fire protection services in the City through four fire stations. The nearest fire station to the site is Fire Station 263 (10 West Pennsylvania Avenue), located approximately 1.6 miles southeast of the site. The project would improve existing facilities at the WWTP and would be constructed in accordance with the CBC, including the NFPA 820 and NEC 500 standards. While more equipment will be present at the WWTP, the replacement of older equipment is expected to reduce the potential for fire. The proposed improvements would not create fire hazards that could increase the demand for fire protection services; generate a need for new fire stations in the area; or cause any significant impacts to existing fire protection services. Demand for fire protection services at the site is expected to remain unchanged. Therefore, impacts to fire protection services would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Police protection?			X	

The Redlands Police Department provides law enforcement and police protection services in the City, including the site. The WWTP site would remain fenced, and personnel would also be stationed at the WWTP 24 hours per day, 7 days per week. The project would not attract crime to the area. Thus, the project would not result in the need for new police stations in the area or otherwise adversely impact existing police services. Demand for police protection services at the site is expected to remain unchanged. Therefore, impacts to police protection services would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Schools?				X

The project would not bring in residents to the site who would generate a demand for school services; therefore, it would not impact local schools. No impacts to schools would result from the project.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Parks?				X

The project would not bring in residents to the site who would generate a demand for parks and recreational facilities. There are no existing nearby parks or recreational facilities that would be affected by the project. No impacts to parks would occur.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Other public facilities?				X

The project would improve the City's wastewater treatment services and would not use or require other public facilities. No new or additional personnel would be needed to operate the upgraded WWTP. Operation and maintenance of the improved WWTP would not result in any impacts to other public facilities.

<b>XVI. Recreation</b>				
Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X

There is no recreational use at the WWTP site, and the project would not bring in residents that may create a demand or result in an increase in use of any parks or other recreational facilities; therefore, there would be no impact to existing or planned neighborhood and regional parks.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X

The project does not propose any new or improved recreational facilities. While a portion of the site is zoned as Open Space and the Redlands Land Use Map shows a Linear Park through the site, there are no recreational facilities on or near the site, and the project does not propose

recreational uses or improvements to existing recreational facilities. No impacts to the environment from expansion of recreational facilities would occur with the project.

<b>XVII. Transportation</b>				
Would the project:				
<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian paths?			X	

During the construction period, construction workers would come to the WWTP site daily for approximately 24 months. Assuming 16 construction workers travel in single-occupant vehicles, this would result in an estimated maximum 32 additional inbound/outbound vehicle trips. In addition, trucks, delivery equipment, and building materials would come to the site during construction. These trips would generally occur before the morning and evening peak-hour traffic. Due to their limited number, the movement of construction vehicles would not result in any change to the volume-to-capacity ratio of roadways or levels of service at intersections in the surrounding area. Partial or full closure of Alabama Street during construction of the force main pipeline across this street would be limited to a few days, with flaggers and/or detour signs provided to maintain traffic flow. Construction-related traffic would be a temporary, short-term condition and would not result in any substantial effects on traffic.

Operation of the improved WWTP would not result in an increase in the number of employees at the site or the number of delivery trucks coming to the site. Thus, no long-term traffic impacts would occur with the project. The project would not conflict with any plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.

There are no bicycle lanes or trails in the surrounding area, although a portion of the Santa Ana River Trail is proposed for extension along the south side of the Santa Ana River and along Alabama Street near the site. Omnitrans bus transit routes do not operate on Nevada Street or Alabama Street near the site. The project does not include any changes to existing roadways or pedestrian facilities, nor would it result in any conflicts with policies that support public transit, bicycle, or pedestrian facilities. There would be no conflicts with future bike trails because no improvements are proposed where future bike trails are planned along the Santa Ana River and the force main pipeline would be placed underground across Alabama Street. Therefore, impacts on plans or policies that support alternative transportation are not expected.

Impacts to roadway traffic would be short-term during construction and would be considered less than significant.

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Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) For a land use project, would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)(1)?				X

The project would not increase the number of employees at the WWTP nor increase vehicle miles traveled; therefore, it would not be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)(1). There would be no impact related to increased travel with the project.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) For a transportation project, would the project conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)(2)?				X

The project is not a transportation project and would not increase vehicle miles traveled or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)(2). There would be no impact with the project.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X

The project would not result in any changes to roadways or intersections in the vicinity of the WWTP. The main entrance to the WWTP would be improved through landscaping, entry monumentation, and gate improvements. These would not result in sharp curves or dangerous intersections. No hazards or incompatible uses would occur as a result of the project. The force main pipeline would be placed underground across Alabama Street and the roadway surface returned to original conditions after construction. Therefore, no impacts related to roadway hazards would occur with the project.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Result in inadequate emergency access?				X

The project would not require any changes to roadways, intersections, or access to the site. The proposed upgrades and improvements would be confined to the WWTP site (e.g., treatment plant and edge of the percolation ponds), and partial or complete street closures would be limited to the time when the force main pipeline is constructed beneath Alabama Street. Flaggers and/or detour signs would be provided as necessary to maintain traffic flow. Landscaping, entryway monuments, and gate improvements would occur at the WWTP main entrance at Nevada Street, but there is a secondary entrance to the north where no improvements are proposed. The proposed work would only partially block the main gate for a limited time period. Therefore, impacts on emergency response or evacuation plans would be less than significant.

<b>XVIII. Tribal Cultural Resources</b>				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X

As discussed in Section 2.3.IV, the Historic Property Identification Report for the WWTP evaluated the eligibility of the WWTP for the NRHP, the CRHR, and local designation as a City of Redlands Historic Resource (attached as Appendix C). The findings of this report indicate the Redlands WWTP site is not eligible for listing in the NRHP or the CRHR. It is also not eligible for designation as a City of Redlands Historic Resource.

Thus, no tribal cultural resources that are listed or eligible for listing in the NRHP, the CRHR, or local designation as a Historic Resource would be affected by the proposed upgrade of the WWTP. No impacts would occur with the project.

<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource		X		

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
to a California Native American tribe.				

Native American resources can include, but are not limited to, archaeological sites, burial sites, ceremonial areas, caves, mountains, water sources, trails, plant habitat, or gathering areas, or any other natural area important to a culture for religious or heritage reasons. NRHP-eligible traditional sites are subject to the same regulations, and afforded the same protection, as other types of historic properties. The Region of Influence (ROI) for Native American traditional resources consists of those areas associated with project activities in the vicinity of the WWTP. To date, there are no resources that have been identified to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1.

As part of the Historic Property Identification Report, the NAHC was contacted to request information on sacred lands that may be located near the project site. The NAHC indicated that the Sacred Lands File search was positive and recommended that the San Manuel Band of Mission Indians be contacted for more information. The NAHC also provided a Tribal Consultation List of 10 contacts representing 7 Native American groups, all of which were contacted, and no information regarding tribal cultural resources has been received by the City or City’s consultant.

In addition, the City’s Planning Division maintains a list of Native American Tribes that have requested notification pursuant to AB 52: Gabrieleno Band of Mission Indians – Kizh Nation; Morongo Band of Mission Indians; Soboba Band of Luiseno Indians; San Manuel Band of Mission Indians; and Torres Martinez Desert Cahuilla Indians. Notification was sent on May 26, 2021, and several telephone calls and email correspondence with the Consulting Tribes have occurred, as appropriate.

The Gabrieleno Band of Mission Indians responded on June 3, 2021 requesting consultation. Telephone calls and email correspondence have not provided any information or evidence indicating the presence of any tribal cultural resources on the project site or the vicinity. The tribe [or the City] concluded consultation on October 8, 2021.

The San Manuel Band of Mission Indians requested consultation, stated they do not have any tribal cultural resources or sacred lands in the vicinity of the project site, and provided suggested mitigation measures for any inadvertent discoveries. The tribe [or the City] concluded consultation on October 8, 2021.

The City has not been presented with any information or evidence indicating the presence or the likely presence of any tribal cultural resources on or near the project site (including, but not limited to, undisclosed Native American burial sites, funerary objects, village sites, camp sites, landscapes, or other significant tribal cultural resources). The City requested such information or evidence from all consulting tribes, but none has been received. However, the City has agreed to implement mitigation measures as suggested through consultation to address the potential for any inadvertent discoveries during the project’s ground-disturbing activities.

While the site is developed and disturbed, the discovery of tribal cultural resources is possible (i.e., inadvertent discovery) during ground-disturbing activities, the potential disturbance or destruction of which would be considered a less than significant impact with incorporation of the following mitigation measures. The following measures shall be implemented to prevent any significant adverse impacts to tribal cultural resources:

**TCR-1: Monitoring and Unanticipated Discovery of Tribal Cultural Resources.** A Tribal Monitor from the Consulting Tribe(s) shall be onsite to monitor all project-related earthmoving work. Prior to the initiation of construction activities, a rotating schedule of Tribal Monitor(s) shall be established. In the event that potential tribal cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. The Consulting Tribe(s) Cultural Resources Department shall be contacted and provided information regarding the nature of the find, so as to allow Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a tribal cultural resources Monitoring and Treatment Plan shall be created, in coordination with the Consulting Tribe(s) and all subsequent finds of tribal cultural resources shall be subject to this Plan.

**TCR-2: Monitoring and Treatment Plan.** If significant pre-contact and/or historic-era tribal cultural resources are discovered and avoidance cannot be ensured, a Monitoring and Treatment Plan shall be developed in coordination with Consulting Tribes, the drafts of which shall be provided to the Consulting Tribe(s) for review and comment. The tribal monitor(s) and/or archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

**TCR-3: Ongoing Coordination and Documents and Reports.** The City shall, in good faith, coordinate with the Consulting Tribe(s) throughout the life of the project for any tribal cultural resources. Any and all archaeological/cultural documents created as part of the project and may be legally disclosed in accordance with applicable law (e.g., isolate records, site records, survey reports, testing reports) shall be supplied to the Consulting Tribe(s).

Impacts on Tribal Cultural Resources would be considered less than significant after mitigation.

<b>XVIX. Utilities and Service Systems</b>				
Would the project:				
<b>Potential Impacts</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant With Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	

The WWTP currently treats wastewater through a combination of MBR and CAS systems and has limited onsite wastewater generation from two toilets/locker rooms and a small kitchen. The proposed improvements would not increase the amount of wastewater treated at the site. The number of personnel at the site who use the toilets and kitchen would not change; and no additional wastewater would be generated. The project would install a state-of-the-art 9.5-MGD MBR system, which is an increase over the existing 6.0-MGD MBR system, and would eliminate the 3.5-MGD CAS system. No increases in the overall capacity of the WWTP would occur. Impacts associated with wastewater treatment would be considered less than significant.

The project would consist of improvements of existing systems and equipment, but it would not increase the WWTP’s capacity. Water demand from the existing personnel at the staff would remain unchanged because no new personnel would be needed with the upgraded WWTP. The landscaping and trees proposed at the entryway and perimeter of the site would require irrigation water, which could be provided by the recycled water that would be generated by the upgraded WWTP. No new or expanded water facilities are needed. Impacts on water services, as provided by the City, would be considered less than significant.

The project would result in an increase in impervious surfaces (approximately 2,000 square feet of buildings and structures), which would be at scattered locations at the site. Runoff from these impervious surfaces are expected to go into adjacent areas that are unpaved for ground percolation. Due to the small size and scattered locations of new impervious surfaces, the project would not result in the need for new storm water drainage facilities. Impacts to storm water drainage would be considered less than significant.

The project would result in an approximate 10 to 12 percent increase in electrical power use, from 650,000 kWh per month to 728,000 kWh per month, due to additional equipment and the same or decreased natural gas use, which is currently an average of 114 cubic feet per day, due to the continued use of digester gas for heating the boilers/heat exchangers. While electrical lines would be provided for the new equipment and buildings, no offsite expansion of the electrical or natural gas infrastructure is proposed. Impacts would be less than significant.

Similarly, telecommunication facilities at the site would be extended to new equipment and buildings, but no offsite expansion is proposed. Impacts would be less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	

The project is not expected to result in the need for additional water to run the full MBR system. No increase in personnel at the site who use water would occur with the project. Irrigation for the proposed landscaping and trees at the site is expected to utilize recycled water generated by the upgraded WWTP. No new or expanded entitlements would be needed for the project and the upgraded WWTP. Impacts to water supplies would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X

The proposed project would improve wastewater treatment services in Redlands, but it would not result in any increase in the WWTP's capacity or the amount of wastewater that is conveyed to the WWTP. No increase in personnel at the site who generate wastewater from toilet and kitchen use would be needed to operate and maintain the upgraded WWTP. Thus, no adverse impacts related to wastewater generation would occur with the project.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure?			X	

The amount of construction wastes that would be generated by the project would be minimal due to the size and type of the proposed improvements. Construction wastes would be recycled, salvaged, or disposed in accordance with the CalGreen Code, Chapter 13.64 of the City's Municipal Code – Integrated Solid Waste Management Ordinance, and Chapter 13.66 of the Municipal Code – Recycling Requirements for Specified Development Activity. Construction wastes would be taken to the California Street Landfill located west of the site across Nevada Street. This landfill is owned and operated by the City and is projected to be in operation until 2042 when its 11.4 million cubic yard capacity would be reached. The need for construction-generated waste disposal from the project would be a short-term event over 24 months and would be within the daily permitted throughout of the California Street Landfill of 829 tons per day.

No change in the amount of wastewater treated at the WWTP or in the number of personnel operating the WWTP would occur with the project. Thus, no long-term increase in solid waste generation is expected with the project. Impacts on solid waste disposal would be temporary during construction and are considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals?			X	

As discussed above, solid waste generation by the project would be limited to the construction phase, and solid wastes would be brought to the California Street Landfill located across Nevada Street from the WWTP. Due to the type and size of improvements and the short-term generation of construction wastes, the project would not negatively impact the provision of solid waste services in Redlands. No increase in long-term waste generation or the number of employees at the site would occur, which may impair attainment of the City’s solid waste reduction goals. Impacts would be less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

The project would comply with applicable federal, state, and local management and reduction statutes and regulations related to solid waste. As discussed above, construction wastes would be recycled, salvaged, or disposed in accordance with the CalGreen Code, Chapter 13.64 of the City’s Municipal Code – Integrated Solid Waste Management Ordinance, and Chapter 13.66 of the Municipal Code – Recycling Requirements for Specified Development Activity. Impacts would be less than significant with the project.

<b>XX. Wildfire</b>				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Impair an adopted emergency response plan or emergency evacuation plan?			X	

CALFIRE has designated the WWTP site as a Non-Very High Fire Hazard Severity Zone. Adjacent areas are also designated as Non-Very High Fire Hazard Severity Zones.

The proposed upgrades and improvements would be confined to the WWTP site (e.g., treatment plant and pipeline alignment) and would not affect emergency response and evacuation in adjacent streets or areas. Landscaping, entryway monument, and gate improvements would occur at the WWTP main entrance at Nevada Street, but there is a secondary entrance to the

north, which would be available for emergency response or evacuation, where no improvements are proposed. The proposed work would only partially block the main gate for a limited time period. Partial or complete street closure would be limited to Alabama Street when the force main pipeline is installed beneath the street during project construction. Flaggers and/or detour signs would be provided as necessary. Impacts would be less than significant with the project.

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

Areas adjacent to the project site are designated by CALFIRE as Non-Very High Fire Hazard Severity Zones, similar to the site. The project area does not feature steep slopes, and prevailing winds are from the northwest. The proposed system and facility upgrades would be confined to the WWTP site and constructed in accordance with the CBC, including the NFPA 820 and NEC 500 standards. Thus, the project would not create wildfire risks or expose people to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impacts would be less than significant with the project.

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

The project does not propose improvements that may exacerbate fire risk. The proposed pedestrian access to the bottom of the peak storage ponds and the small access road to be constructed west of the main operations building would not create a fire risk. Power lines would be extended to the proposed buildings and equipment but would be installed in accordance with NFPA 820 and NEC 500 standards. No increase in fire hazards would occur with the project. Proposed landscaping, slope protection, and trees would have minimal impacts on wildfire hazards. Impacts would be less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

The project area is relatively flat, although there are earthen berms on the north, west, and east sides of the WWTP site. The project site is not located in an area where post-fire slope instability or changes in drainage would result in flooding or landslides on or near the site. Thus, no risks to people or structures in the area would occur. No impacts are expected.

<b>XXI. Mandatory Findings of Significance</b>				
Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X		

The analyses in Sections 2.3.IV and 2.3.V of this IS indicate the project could result in significant adverse effects on biological, cultural, and tribal cultural resources. Several mitigation measures are proposed for the protection of active nests, burrowing mammals, and roosting bats. With the implementation of BIO-1 through BIO-8, construction activities associated with the project would not result in significant adverse impacts on biological resources after mitigation. As such, the project would not have the potential to substantially degrade the quality of habitats for a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of a rare or endangered plant or animal.

Impacts on undiscovered cultural, paleontological, or tribal cultural resources or human remains would be reduced with implementation of mitigation measures CUL-1, CUL-2, GEO-1, TCR-1, TCR-2, and TCR-3. The project would not eliminate important examples of the major periods of California history or prehistory. Impacts on biological and cultural resources would be less than significant after mitigation.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	

The impacts of the project would generally be associated with short-term construction activities because improvements to WWTP operations would occur with the project over the long-term and no major changes to the operational impacts of the WWTP would occur in terms of wastewater volume treated, number of onsite personnel, and truck deliveries to the site. As indicated in Section 1.8, Related Projects, nearby projects that may contribute to the cumulative impacts of the project are limited to TTM 20257 and 20336 projects. Both projects would be located on the other side (east side) of SR-210 and are not expected to be in construction at the same time as the WWTP upgrade because the proposed WWTP improvements are in the early stages of planning and design and would have to go through the SRF loan application process before final design is initiated. The impacts of the project on all environmental issues have been determined to be less than significant or less than significant after mitigation. Thus, the project would not make a cumulatively considerable contribution to the impacts of other projects planned in Redlands and near the WWTP. Cumulative impacts would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?			X	

Direct and indirect adverse effects on human beings that would occur as a result of the project have been determined to be less than significant. As discussed above, impacts on aesthetics, GHG emissions, hazards and hazardous materials, land use and planning, noise, population and housing, public services, recreation, transportation, and utilities and service systems would not be considered significant, and no mitigation is required. Thus, adverse effects on human beings would be less than significant.

## XXII. Socioeconomic Impacts

No direct socioeconomic impacts on employees of the WWTP or on residents and businesses in the area surrounding the site or in Redlands would occur with the project. Indirectly, sewer rates

are expected to increase to help repay the SRF loan but would be based on the land use and wastewater discharge volume of individual wastewater service connections. Long-term economic effects would be less than significant with the project. Construction labor and construction materials would have a temporary, minor, beneficial effect on the local and regional economies; however, the project would not increase long-term employment at the facility and would not change the purchase of goods and services by the WWTP. Thus, the project would have a net, albeit minor, economic benefit to the community during the construction phase.

### **XXIII. Environmental Justice**

EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was issued on February 11, 1994. This EO requires each federal agency to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and in its territories and possessions. EPA and the Council on Environmental Quality (CEQ) have emphasized the importance of incorporating environmental justice reviews into the analyses conducted by federal agencies under the National Environmental Policy Act and of developing measures to avoid disproportionate environmental effects on minority and low-income populations.

The resources addressed in this section are minority and low-income populations and individuals. Persons are included in the minority category if they identify themselves as belonging to any of the following groups: (1) Hispanic; (2) Black (not of Hispanic origin) or African American; (3) American Indian or Alaska Native; or (4) Asian, Native Hawaiian, or other Pacific Islander. The geographic distribution of minority and low-income population groups is based on demographic data from the Southern California Association of Governments (SCAG). The 2018 population (71,196 people) of Redlands consists of a 47.1 percent minority population (i.e., Hispanic or Latino of any race, Asian, Black, American Indian or Alaska Native). This is lower than the minority population in the County of San Bernardino population (67.3 percent) and the SCAG region (65.8 percent). As such, there are fewer minorities in Redlands than in San Bernardino County or the SCAG region.

Individuals who fall below the poverty line are considered low-income. The poverty line accounts for family size and the ages of individuals in the family. Guidance proposed by the CEQ stipulates that a low-income population exists where the percentage of low-income persons in any geographic unit is more than 20 percent higher than the reference geographic unit. A low-income population also exists in any geographic unit where the number of low-income persons exceeds 50 percent of the total population. The California Department of Housing and Community Development has set the 2021 area median income for San Bernardino County at \$77,500 for a four-person household, with low-income households defined as four-person households having an annual income of \$63,200 or less. SCAG estimates the City's 2018 median household income at \$68,956, which is higher than the County's or the SCAG region's median income and higher than the State income limit.

Agencies should consider the composition of the affected area to determine whether minority populations, low-income populations, or Native American tribes are present in the area affected by a proposed project and, if so, whether there may be disproportionately high and adverse

human health or environmental effects on minority populations, low-income populations, or Native American tribes.

The project does not propose any improvements beyond the boundaries of the WWTP site. Local minority communities are not likely to be affected because there are no residences within 0.5 mile of the site. Adjacent land uses consist of the Santa Ana River, the California Street Landfill, vacant land and agricultural fields, a warehouse/distribution center, and a freeway (SR-210). The nearest residences are located approximately 0.7 mile southeast, on the other side of SR-210. No effect on these residences would occur with the project, and no effects on community resources have been identified. At the same time, the WWTP serves Redlands, and the project would improve wastewater treatment services to all residents, including minority populations and low-income households in the City. Consequently, implementation of the project would not directly or indirectly affect or disproportionately burden minority populations. Implementation of the project would not directly affect or disproportionately burden low-income populations. Therefore, no significant impacts related to environmental justice would occur with the project.

## 3.0 COMMENTS ON THE DRAFT IS/MND AND LEAD AGENCY RESPONSES

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The City of Redlands completed a Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed upgrade of its Wastewater Treatment Plant (WWTP). This section provides: information on the notifications and distribution of the Draft IS/MND; comments received on the document; and responses to comments received.

### 3.1 Release of the Draft IS/MND

The Draft IS/MND was released to the public on October 13, 2021 for a 30-day public review period.

#### **Notice of Intent to Adopt a Mitigated Negative Declaration**

A Notice of Intent to Adopt a Mitigated Negative Declaration for the proposed project was filed at the San Bernardino County Clerk on October 13, 2021 for a 30-day review period.

A Notice of Intent to Adopt a Mitigated Negative Declaration for the proposed project was posted on the City's website at <https://www.cityofredlands.org/environmental-documents>.

#### **Direct Mailing of the Notice of Availability**

The Notice of Availability of the Draft IS/MND was sent via certified mail to 10 persons or businesses identified within 300 feet of the WWTP.

#### **Notice of Completion**

The City submitted a Notice of Completion (NOC) to the Governor's Office of Planning and Research (OPR or State Clearinghouse) on October 13, 2021.

#### **State Clearinghouse**

The City submitted copies of the Draft IS/MND to the State Clearinghouse, which submitted the document to State agencies for review. The State Clearinghouse received the document and started the 30-day agency review period on October 13, 2021. The review ended November 15, 2021.

### 3.2 Comments Received on the Draft IS/MND

The City received written comment letters on the Draft Initial Study from one agency:

- Letter 1. San Bernardino County Department of Public Works (November 9, 2021)

A summary of the comments and City responses to each comment is provided in Table 8. Substantive comments in each of the two agency letters have been identified, bracketed, and designated a comment number (see Appendix G). Due to privacy requirements, the actual communications from members of the community have not been reprinted herein (substantive

environmental concerns expressed by members of the community are summarized in Table 8).

The City has reviewed and taken each of these comments into consideration.

**Table 8. Responses to Comments on the Draft Initial Study/Mitigated Negative Declaration**

COMMENT NO.	COMMENT TOPIC/SUMMARY	RESPONSE
Letter 1. San Bernardino County Department of Public Works		
1-1	Encroachment into San Bernardino County Flood Control District (SBCFCD) right-of-way or facilities will require a permit from SBCFCD prior to start of construction.	No project related encroachment into SBCFCD right-of-way or facilities is proposed.
1-2	There is an error with the recommend burrowing owl buffer distances presented in Table 3 of Appendix B – Biological Resources Technical Report.	The table has been revised to accurately reflect the guidance provided in the California Department of Fish and Wildlife Burrowing Owl Staff Report (2012)
1-3	Note that a portion of the Santa Ana River Trail (SART) is proposed for extension along on Alabama Street and will pass over a section of the WWTP proposed force main pipeline crossing under Alabama Street.	The proposed extension of the SART along Alabama Street is mentioned in Section 2.3 XVII – Transportation. As the proposed SART extension is still in the planning phase, construction of the force main under Alabama Street would not directly impact the trail nor effect its future implementation.

## 4.0 SUPPORTING INFORMATION

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## APPENDICES

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