DRAFT

Initial Study and Mitigated Negative Declaration

Patton State Hospital
Waterline Replacement Project

San Bernardino, California

Lead Agency:

California Department of State Hospitals
1215 O Street
Sacramento, California 95814

Prepared for:

California Department of General Services
Real Estate Services Division
707 3rd Street 3-401
West Sacramento, California 95605

Prepared by:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

215 North 5th Street
Redlands, CA 92374

March 2022

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DRAFT MITIGATED NEGATIVE DECLARATION

Lead Agency: California Department of State Hospitals

Project Proponent: California Department of General Services

Project Location: The Project is located at Patton State Hospital in the City of San Bernardino in the community of Patton in San Bernardino County, California at 3102 Highland Avenue.

Project Description: Patton State Hospital proposes to replace an existing 14-inch diameter, 115-foot-long waterline due to leakage. The waterline replacement would take place in the northeast one-third of the hospital where a solar field currently exists. The new 16-inch diameter waterline would extend approximately 165 feet and be installed from two existing valve assemblies.

Public Review Period: March 30, 2022 to April 28, 2022

Mitigation Measures Incorporated into the Project to Avoid Potential Significant Effects:

Biological Resources

BIO-1: **Pre-Construction Nesting Bird Survey.** If construction or other Project activities are scheduled to occur during the bird breeding season (February 1 through August 31), a pre-construction nesting bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests will not be disturbed or destroyed during implementation of Project activities. The survey shall be completed no more than three days prior to initial ground disturbance and shall include the Project Site and adjacent areas where Project activities have the potential to directly or indirectly affect active nests due to construction activity, noise, dust, or ground disturbance. The biologist shall perform a pedestrian survey of the entire Project Site and an appropriately sized buffer, where accessible, to achieve 100 percent visual coverage of the survey area. If an active nest is identified, a qualified avian biologist shall establish an appropriately sized non-disturbance limit buffer around the nest using flagging or staking. The size of the non-disturbance buffer will be based on nest location, expected project activities and timing, and bird species and tolerance to human-related activities. Project activities shall not occur within any disturbance limit buffer zones until the nest is deemed inactive by the qualified biologist. Periodic monitoring of the active nest(s) by the biologist may be necessary to determine nest status and success.

BIO-2: **Pre-Construction Survey for Burrowing Owl.** Pre-construction surveys for burrowing owl shall be conducted between 14 and 30 days and again no more than 24 hours prior to the

start of ground-disturbing activities to determine whether burrowing owls are present on or within 500 feet of the Project Site. The surveys shall follow the methods described in the CDFW's Staff Report on Burrowing Owl Mitigation (CDFW 2012). The surveys shall be conducted by a qualified biologist with experience surveying for and identifying burrowing owls and their sign. If burrowing owls and/or suitable occupied burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified on the Project Site during the survey and impacts to the species or occupied burrows are unavoidable, additional mitigation measures consistent with those outlined in the Staff Report (CDFW 2012) may need to be implemented, such as establishing a non-disturbance buffer around occupied burrows, seasonal work restrictions, or passive relocation during the non-nesting season. Coordination with CDFW would need to occur if passive relocation is found to be necessary. If the pre-construction surveys result in no detections of live burrowing owls and no sign of owl use of potential burrows on the site, then Project activities may commence.

BIO-3: **Pre-Construction Survey for Special-Status Bat Species and Bat Maternity Colonies.** Within 30 days prior to the start of ground-disturbing activities a qualified bat biologist will conduct a bat habitat assessment at the abandoned buildings adjacent to the Project Site to determine the potential for suitable bat roosting habitat and the presence of roosting bats. If no suitable roosting habitat is identified, no further measures are necessary. If suitable roosting habitat and/or evidence of bat occupation is present, the biologist will conduct follow-up nighttime surveys to determine the species present and to evaluate the size and significance of the colony. Focused surveys will include a combination of nighttime emergence counts and acoustic techniques appropriate for the roosting habitat and time of year. If roosting bats are determined to be present, the qualified bat biologist will prepare a Bat Management Plan that will outline project-specific protective measures to avoid and minimize impacts to roosting bats during project construction.

BIO-4: **Potentially Jurisdictional Drainage Ditch Avoidance.** Prior to the start of ground-disturbing activities, the boundary of the potentially jurisdictional drainage ditch (east of the Project Site along Orange Street) shall be clearly demarcated by construction crews, using construction fence or other highly visible method. It is recommended that silt fencing or another temporary barrier be placed at a distance of 10 feet from the boundary of this drainage channel. During construction activities, this drainage ditch shall also be avoided by construction crews.

Cultural Resources

CUL-1: **Cultural or Archaeological Resource Discovery.** In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed within TCR-1, regarding any pre-contact and/or post-contact (i.e., historic) finds

and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

CUL-2: **Significant Pre-Contact and/or Post-Contact Cultural or Archaeological Resource Discovery.** If significant pre-contact and/or post-contact cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to SMBMI for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

CUL-3: **Inadvertent Discovery of Human Remains.** If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

Tribal Cultural Resources

TCR-1: **Cultural Awareness and Sensitivity Training.** The San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted at least five (5) business days prior to project implementation and be notified of project start date, schedule, and projected end date. SMBMI shall be provided the opportunity to conduct a Cultural Awareness and Sensitivity Training (CAST) prior to project implementation for all personnel who will be working on the project site. SMBMI's cultural monitor(s) will also be provided access to the project site during the duration of implementation in order to provide cultural monitoring of the project, if elected by SMBMI and to the extent decided upon by SMBMI (i.e., full-time, part-time, spot-checking, etc.). Any documentation created by SMBMI as a result of monitoring efforts will be provided to the project proponent for their files.

TCR-2: **Inadvertent Cultural Resource Discovery.** The San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed in TCR-1, of any pre-contact and/or post-contact (i.e., historic) cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a cultural resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with SMBMI, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents SMBMI for the remainder of the project, should SMBMI elect to place a monitor on-site.

TCR-3: **Consultation with San Manual Band of Mission Indians.** Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to SMBMI. The Lead Agency and/or applicant shall, in good faith, consult with SMBMI throughout the life of the project.

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Description
AB	Assembly Bill
ANSI	American National Standards Institute
APE	Area of Potential Effect
AQMP	Air Quality Management Plan
BGS	below ground surface
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CAISO	California Independent System Operator
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CH_4	methane
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CO Plan	Federal Attainment Plan for Carbon Monoxide
CPUC	California Public Utilities Commission
CRHR	California Register of Historic Places
CWA	Clean Water Act
DDCV	Double Detector Check Valve
DTSC	Department of Toxic Substances Control
EFZ	Earthquake Fault Zone
EIC	Eastern Information Center
EIR	Environmental Impact Report
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
GHG	Greenhouse Gas
LRA	Local Responsibility Area
LST	Localized Significance Threshold
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendent
MMT	Million Metric Tons
MND	Mitigated Negative Declaration
MSHCP	Multiple Species Habitat Conservation Plan
$MTCO_2e$	metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards

Acronym/Abbreviation	Description
NAHC	Native American Heritage Commission
ND	Negative Declaration
NIOSH	National Institute for Occupational Safety and Health
NPDES	National Pollutant Discharge Elimination System
N_2O	nitrous oxide
NO_x	nitrogen oxides
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OHV	Off-Highway Vehicle
OPR	California Office of Planning and Research
OSHA	Occupational Safety and Health Administration
$PM_{2.5}$	Particulate Matter Less than 2.5 Microns in Diameter
PM_{10}	Particulate Matter Less than 10 Microns in Diameter
PPV	Peak particle velocity
PRC	Public Resources Code
PRV	Pressure Reducing Valve
RCPG	Regional Comprehensive Plan and Guide
ROG	Reactive Organic Gases
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SBNF	San Bernardino National Forest
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SIP	State Implementation Plan
SP	Service Population
SoCAB	South Coast Air Basin
SR	State Route
SRA	Sensitive Receptor Area
SRA	State Responsibility Area
SWPPP	Storm Water Pollution Prevention Plan
SWRB	State Water Resources Board
SWRCB	State Water Resources Control Board
USACE	United States Army Corps of Engineers
SCAG	Southern California Association of Governments
VHFSZ	Very High Fire Severity Zone
VMT	Vehicle Miles Traveled

1.0 BACKGROUND

1.1 Summary

Project Title:	Patton State Hospital Waterline Replacement Project
Lead Agency Name and Address:	California Department of State Hospitals 1215 O Street Sacramento, CA 95814
Contact Person and Phone Number:	Chris Lehner, Associate Construction Analyst - DSH; (916) 562-3766
Project Location:	Patton State Hospital 3102 Highland Avenue, Patton, CA 92369 San Bernardino County, California, United States
General Plan Designation:	Public Facility/Quasi-Public (PF)
Zoning:	PF – Public Facility

1.2 Introduction

The California Department of State Hospitals is the Lead Agency for this Initial Study. The Initial Study has been prepared to identify and assess the anticipated environmental impacts of the Patton State Hospital Waterline Replacement Project (Proposed Project). This document has been prepared to satisfy the California Environmental Quality Act (CEQA) (Pub. Res. Code, Section 21000 *et seq.*) and State CEQA Guidelines (14 CCR 15000 *et seq.*). CEQA requires that all state and local government agencies consider the environmental consequences of Projects over which they have discretionary authority before acting on those Projects. A CEQA Initial Study is generally used to determine which CEQA document is appropriate for a Project (Negative Declaration [ND], Mitigated Negative Declaration [MND], or Environmental Impact Report [EIR]).

1.3 Surrounding Land Uses/Environmental Setting

Patton State Hospital is located in the City of San Bernardino in the community of Patton in San Bernardino County, California at 3102 Highland Avenue (Figure 1 and Figure 2). The facility includes 243 acres and is located approximately 80 miles east of Los Angeles. The Project Site is bordered by Highland Avenue to the south, Victoria Avenue to the west, and Orange Street to the east. Access to the hospital is provided by Highland Avenue; truck and secondary access is provided on Date Street from Victoria Avenue. The Project Site is surrounded by commercial and residential uses. Land uses north of the hospital include single-family residential uses and Serrano Middle School. Land uses east of the hospital include a City of San Bernardino Fire Station and single-family residential uses. Land uses south of the hospital include commercial uses and multi-family residences. Land uses to the west include a flood control channel and stormwater detention basins owned by the County of San Bernardino and single- and multi-family residential land uses. Other significant land uses in the vicinity of the hospital include the San Manuel Band of Mission Indians Reservation (including a casino) approximately one mile northwest of the

Project Site. Bonnie Oehl Elementary School and Serrano Middle School are the closest schools to the Project Site, located approximately 0.25 mile east, and immediately adjacent to and north of the hospital, respectively. The closest sensitive receptors are the residential units and staff housing on the hospital campus; and the single-family residential housing and Serrano Middle School adjacent to the hospital to the north.

Patton State Hospital is a major forensic mental hospital operated by the California Department of State Hospitals (DSH). It provides mental health care and treatment to forensic and civilly committed patients in need of a structured, secure environment. Patton treats high-risk patients, including those transferred from the courts (forensic patients). Portions of Patton State Hospital are fenced to house patients that require mental health treatment in a secured facility. The property has two separate secure compounds, one on the east side of the property and one on the west side of the property, known as the East Perimeter and West Perimeter compounds, respectively.

Each compound contains various housing units (including satellite kitchens and dining rooms), a secured entrance, guard post locations along the perimeter fence, and other buildings and recreational open space bounded by security fencing. Outside of the secure compound areas, the hospital includes the main kitchen, warehouses, administration buildings, staff residences, a canteen, a physical fitness center, a children's daycare facility, the Highland Senior Center, and the California Conservation Corps. Patton State Hospital opened on August 1, 1893.

Location: N:\2018\2018-116.32 Patton State Hospital\MAPS\location_vicinity\Patton_Vicinity.mxd (MAG)-mguidry 10/21/2021

Map Date: 10/21/2021

Sources:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 1. Project Vicinity

2018-116.35 Patton State Hospital

Location: N:\2018\2018-116.32 Patton State Hospital\MAPS\location_vicinity\Patton_Loc_Aerial.mxd *(MAG)-mguidry 10/21/2021*

Map Date: 10/18/2021
Base Source: Esri World Imagery

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 2. Project Location

2018-116.35 Patton State Hospital

2.0 PROJECT DESCRIPTION

2.1 Proposed Project

Patton State Hospital proposes to replace an existing 14-inch diameter, 115-foot-long waterline due to leakage. The waterline replacement would take place in the northeast one-third of the hospital where a solar field, a collection of multiple solar panels that generate electricity as a system, currently exists. The existing waterline is located just north of the eastern portion of the solar field and runs diagonally across the western portion of the solar field. The new 16-inch diameter waterline would extend approximately 165 feet and be installed from two existing reduced pressure double detector check (DDCV) and CLA-VAL pressure reducing valve assemblies. The new waterline would need to cross the southern portion of an existing, non-jurisdictional north/south drainage located in between the solar field. The Project would also replace one high flow DDCV assembly with a 3-inch low flow assembly to stabilize water system pressure swings. The Project also involves improvements to the West and East Loop pressure reducing valve (PRV) stations to help stabilize the water system pressure swings. The proposed site plan is included as Figure 3.

The new waterline would be buried in a new approximately 5 to 6-foot-deep trench beginning at the west side of Orange Avenue and extending west to the facility water system manifold. Fencing, concrete, and asphalt along the new water line alignment would be removed and replaced as needed. The new pipe would be covered with sand and the trenching would be backfilled with compacted soil (some of the topsoil would not be used as its typically organic material; not suitable for backfill). Ground disturbing activities would consist of less than 0.5 acre. Therefore, coverage under the General Permit for Stormwater Discharges Associated with Construction Activity (commonly referred to as the Construction General Permit) would not be required.

During construction, the existing 14-inch waterline would remain in service and would be disconnected and abandoned in place once the new water line is installed. The abandoned waterline would be filled with grout. During the connection process, the water system would be shut down. It is anticipated that this shutdown would be less than four hours.

Construction of the Proposed Project is estimated to begin in Spring of 2023 and last approximately 13 months. It is estimated that one crew of 4 to 8 people would be responsible for working on pipe fittings and installations while another crew of 4 to 8 would be responsible for excavating the trench for the waterline to be placed. An existing contractor lay down area and dumpster area located southwest of the solar field would be used during construction of the Proposed Project.

N

W E

S

1"=40'

0 20 40 80

PATTON STATE HOSPITAL

WATERLINE REPLACEMENT CONCEPTUAL SITE PLAN

AUGUST 20, 2021

PROJECT SCOPE

INSTALL NEW WATERLINE FROM TWO EXISTING REDUCED PRESSURE DOUBLE DETECTOR CHECK AND CLA–VAL PRESSURE REDUCING VALVE (DDCV) ASSEMBLIES AT THE WEST SIDE OF ORANGE AVENUE TO THE FACILITY WATER SYSTEM MANIFOLD, WEST OF SOLAR ARRAY. ONCE NEW WATER MAIN IS INSTALLED, DISCONNECT EXISTING WATERLINE AND ABANDON IN PLACE.

REMOVE ONE OF THE REDUNDANT HIGH FLOW DDCV ASSEMBLIES AND CHANGE OUT TO A 3" LOW FLOW ASSEMBLY TO STABILIZE WATER SYSTEM PRESSURE SWINGS.

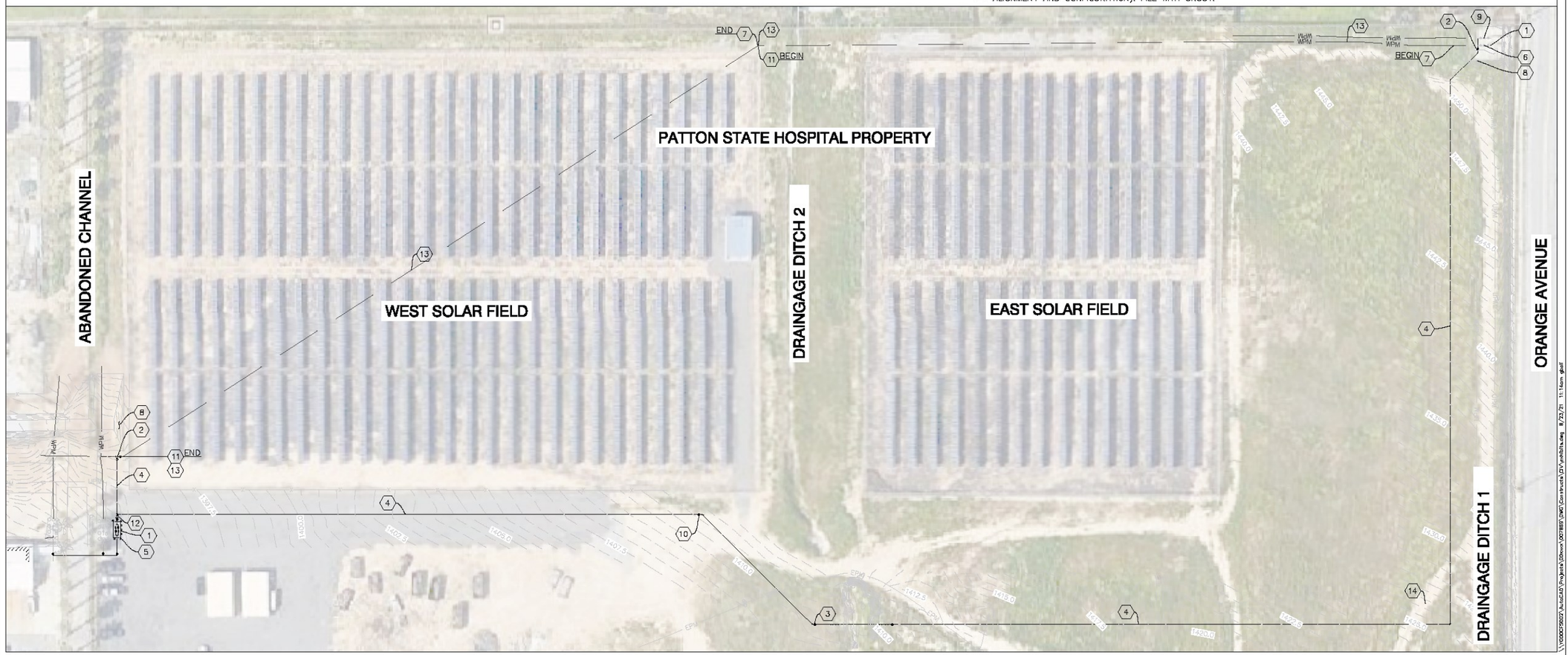
NOTE/BACKGROUND

DUE TO THE SIZE OF THE DDCV'S THAT EXIST AT THE FACILITY, THE LACK OF A LOW FLOW BY–PASS AND THE FACILITY WATER DEMANDS, THE FACILITY IS EXPERIENCING 40 PSI PRESSURE FLUCTUATIONS. IN ORDER TO CORRECT THIS, THE PROJECT WILL PROVIDE A LOW FLOW BY–PASS AT THE DDCV'S NEAR ORANGE AVENUE. PER THE FACILITY, IF MODIFICATION TO MANIFOLD AREA (WEST OF WESTERLY SOLAR ARRAY) IS NEEDED, IT WILL HAPPEN IN THE FUTURE AND IS NOT A PART OF THIS PROJECT. A TEE WITH BLIND FLANGE WILL BE PROVIDED FOR FUTURE MODIFICATIONS IF NEEDED.

THE EXISTING WATER SYSTEM FOR THE FACILITY MUST REMAIN IN SERVICE DURING THE ENTIRE CONSTRUCTION PROCESS. CONNECTION TO THE EXISTING SYSTEM WILL TAKE PLACE ONCE MAJORITY OF THE INFRASTRUCTURE IS IN PLACE. SHUT–DOWN IS REQUIRED, LESS THAN 4HR DURATION.

WATER CONSTRUCTION NOTES

1. PHASED PRV IMPROVEMENT. PRV STATION AT WEST SIDE ONLY REQUIRED IF PRESSURE FLUCTIONS ARE NOT FIXED AFTER IMPROVEMENTS TO ORANGE AVE PRV STATION. DESIGNED AS ADD ALTERNATE TIEM.
2. LESS THAN 4HR SHUT–DOWN FOR FINAL CONNECTION TO 16" WATERLINE AND UPDATE PRV LOOP
3. INSTALL ISOLATION VALVE.
4. INSTALL NEW 16" WATERLINE.
5. DUAL PRV STATION
6. REMOVE EXISTING 8" DDCV AND PRV ASSEMBLY AND REPLACE WITH 3" DDCV AND 3" PRV.
7. ABANDON IN PLACE EX. WATERLINE (ASSUMED ALIGNMENT AND CONFIGURATION). FILL WITH GROUT.
8. REMOVE AND REPLACE FENCE, CONCRETE, ASPHALT AS NEEDED TO INSTALL NEW WATERLINE.
9. EXISTING 8" DDCV TO REMAIN IN PLACE AND ACTIVE DURING AND AFTER CONSTRUCTION OF NEW WATERLINE.
10. COMBINATION AIR AND VACUUM RELEASE VALVE.
11. ABANDON PIPELINE BENEATH SOLAR FIELD. FILL WILL GROUT.
12. INSTALL TEE WITH BLIND FLANGE FOR FUTURE USE.
13. NEED TO CONFIRM LOCATION VIA POTHOLE/TRENCHING.
14. AREA NOT PART OF DRAINAGE CHANNEL 1



Source: RESD

Figure 3. Site Plan

2018-116.35 Patton State Hospital

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2.2 Regulatory Requirements, Permits, and Approvals

The following approvals and regulatory permits would be required for implementation of the Proposed Project:

California Department of State Hospitals – adoption of MND

2.3 Consultation with California Native American Tribe(s)

Assembly Bill (AB) 52 requires that prior to the release of a CEQA document for a project, an agency begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the Proposed Project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the Lead Agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe and (2) the California Native American tribe responds in writing, within 30 days of receipt of the formal notification, and requests the consultation.

The following California Native American tribes are traditionally and culturally affiliated with the Project area and have been notified of the Project: San Manuel Band of Mission Indians and the San Gabriel Band of Mission Indians. A summary of the consultation process, including the determination of significance of impacts to tribal cultural resources, is provided in Section 4.18 of this Initial Study.

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3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

3.1 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.

☐ Aesthetics	☐ Hazards/Hazardous Materials	☐ Recreation
☐ Agriculture and Forestry Resources	☐ Hydrology/Water Quality	☐ Transportation
☐ Air Quality	☐ Land Use and Planning	☐ Tribal Cultural Resources
☐ Biological Resources	☐ Mineral Resources	☐ Utilities and Service Systems
☐ Cultural Resources	☐ Noise	☐ Wildfire
☐ Energy	☐ Paleontological Resources	☐ Mandatory Findings of Significance
☐ Geology and Soils	☐ Population and Housing	
☐ Greenhouse Gas Emissions	☐ Public Services	

Determination

On the basis of this initial evaluation:

I find that the Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	☐
I find that although the Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	☒
I find that the Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	☐
I find that the 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 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 Project, nothing further is required.	☐

Jennifer Parson 3/24/2022

Jennifer Parson — Date
Senior Environmental Planner, DGS

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4.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 Aesthetics

4.1.1 Environmental Setting

Patton State Hospital is located in the City of San Bernardino in the community of Patton in the County of San Bernardino. The hospital is located in a predominately residential area with some commercial and institutional development. The terrain is relatively flat and gradually slopes to the south with an elevation of approximately 1,280 feet to 1,400 feet above mean sea level. The Patton State Hospital property contains one and two story institutional and residential structures, some of which are of historic age and are contributors to a National Register of Historic Places (NRHP)- and California Register of Historical Resources (CRHR)-eligible historic district. A series of internal roads, landscaping, and mature trees are located throughout the southern two-thirds of the hospital property. The northeast corner of the property, where the Proposed Project would be located, contains a solar array consisting of two distinct power blocks.

4.1.1.1 Regional Setting

Scenic vistas near the Project Area include the San Bernardino Mountains and the San Bernardino National Forest (SBNF). The silhouettes of Arrowhead Peak, McKinley Mountain, and Harrison Peak are identifiable landmarks and consequently focal points of the Front Country of the SBNF. Their visual value increases when snow covers their peaks, which seems to accentuate their presence. The San Manuel Indian Reservation is located approximately one mile northwest of the Project Area and is at a similar topographic position as the Project Area.

State Scenic Highways

The California Scenic Highway Program protects and enhances the scenic beauty of California's highways and adjacent corridors. A highway can be designated as scenic based on how much natural beauty can be seen by users of the highway, the quality of the scenic landscape, and if development impacts the enjoyment of the view (Caltrans 2018). The portions of State Route 330 that pass through the City of San Bernardino within the vicinity of the Proposed Project are designated as Eligible Scenic Highways (City of San Bernardino 2005).

4.1.1.2 Visual Character of the Project Site

The Proposed Project would be located adjacent to a solar array in the upper northeast quadrant of Patton State Hospital. The Project Site gently slopes downward from northeast to southwest. Three drainage channels cross the Project Site along the western and eastern edges and down the middle. The Project Site is covered by patchy green and brown ruderal grasses and herbaceous species and in places grayish-tan soil is exposed. The Project Site is mowed occasionally for fire protection. Trees on the Project's portion of the hospital property are rare, although there is a row of mature trees along N. Orange Street from its intersection with Mercedes Avenue south.

4.1.2 Aesthetics (I) Environmental Checklist and Discussion

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐

Less than Significant Impact.

The Proposed Project consists of replacing an existing water line that would be placed entirely underground (approximately four feet deep). During the anticipated 13-month construction period, construction activities, materials, vehicles, equipment, and personnel may be visible from some public vantage points along Orange Avenue. Additionally, chain link fencing that currently exists around the perimeter of the Project Area may need to be removed and replaced during the construction process. Project construction impacts would be temporary in nature and surfaces would be restored to pre-construction conditions; upon completion of the Project there would be no change to the visual character of the Project Site. A less than significant impact would occur.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒

No Impact.

State Route 330 is an eligible Scenic Highway that traverses the City of San Bernardino, approximately 1.5 miles east of Patton State Hospital (City of San Bernardino 2005). The implementation of the Proposed Project would not damage the existing trees and historic buildings on the property and is not expected to substantially affect the setting of the historic district. No impact would occur.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒

No Impact.

As described in question a), the Proposed Project would not include any permanent elements that would be visually incompatible with the existing surrounding community. The Proposed Project's water pipeline would be located below the road surface and would not have any effect on public views. No impact would occur.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Would the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

No Impact.

The Proposed Project would not include lighting as part of the Project. There would be no ongoing light or glare impacts. No impact would occur.

4.1.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.2 Agriculture and Forestry Resources

4.2.1 Environmental Setting

The Project Site was used for orchards in the past; however, it is not currently being used for agricultural purposes. The Project Site is designated as a Public Facility (PF) by the City of San Bernardino General Plan. The Project Site is not located on Prime Farmland nor is it under a Williamson Act contract. There are no local policies related to agricultural resources that apply to the Proposed Project.

4.2.2 Agriculture and Forestry Resources (II) Environmental Checklist and Discussion

Would the Project:	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?	☐	☐	☐	☒

No Impact.

The Project Area is designated as Urban and Built-Up Land by the California Department of Conservation Farmland Mapping and Monitoring Program (2016). There is no Farmland of Local Importance, Prime

Farmland, Unique Farmland, or Farmland of Statewide Importance in the Project Area (California Department of Conservation 2016). No impact would occur.

Would the Project:	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?	☐	☐	☐	☒

No Impact.

The Project Area is zoned as a Public Facility on the City of San Bernardino's Zoning Map (2005). The Proposed Project is not located in an agricultural use zone and is not under a Williamson Act contract (City of San Bernardino 2005). The Project would not result in a conflict with an agricultural zoning designation or a Williamson Act contract. No impact would occur.

Would the Project:	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))?	☐	☐	☐	☒

No Impact.

The Project Site is not zoned for forest land, timberland, or timberland production (City of San Bernardino 2005). The Project Site is currently undeveloped and does not contain forestland or timberland. Surrounding areas are developed with residential, commercial, and school land uses. No impact would occur.

Would the Project:	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?	☐	☐	☐	☒

No Impact.

Forest land is defined in Public Resources Code as, "land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation,

and other public benefits." The Proposed Project is located in a developed urbanized area and would not convert forest land to non-forest use. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

No Impact.

As discussed in question a) and b), the Project Area and the surrounding properties are not currently used for agriculture or considered forest land. No impact would occur.

4.2.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.3 Air Quality

4.3.1 Environmental Setting

The City of San Bernardino is located within San Bernardino County. The California Air Resource Board (CARB) has divided California into regional air basins according to topographic features. The City of San Bernardino portion of San Bernardino County is located in a region identified as the South Coast Air Basin (SoCAB). The SoCAB occupies the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County. The air basin is on a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean on the southwest, with high mountains forming the remainder of the perimeter. The mountain ranges to the east affect the diffusion of pollutants by inhibiting the eastward transport of pollutants. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal Southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

Both the U.S. Environmental Protection Agency (USEPA) and CARB have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone (O_3), carbon monoxide (CO), particulate matter (PM), nitrogen oxides (NO_x), sulfur dioxide (SO_2), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The portion of San Bernardino County encompassing the City of San Bernardino and the Project Site is designated as a nonattainment area for

O_3 and fine particulate matter ($PM_{2.5}$) under the federal standards and O_3, $PM_{2.5}$, and coarse particulate matter (PM_{10}) under the state standards (CARB 2019).

The local air quality regulating authority in San Bernardino County portion is the South Coast Air Quality Management District (SCAQMD). The SCAQMD's primary responsibility is ensuring that the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are attained and maintained in the San Bernardino County portion of the SoCAB. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, and conducting public education campaigns, as well as many other activities. All projects are subject to SCAQMD rules and regulations in effect at the time of construction.

The following is a list of noteworthy SCAQMD rules that are required of construction activities associated with the Proposed Project:

Rule 201 & Rule 203 (Permit to Construct & Permit to Operate) – Rule 201 requires a "Permit to Construct" prior to the installation of any equipment "the use of which may cause the issuance of air contaminants . . ." and Regulation II provides the requirements for the application for a Permit to Construct. Rule 203 similarly requires a Permit to Operate.

Rule 402 (Nuisance) – This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

Rule 403 (Fugitive Dust) – This rule requires fugitive dust sources to implement best available control measures for all sources, and all forms of visible PM are prohibited from crossing any property line. This rule is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM_{10} suppression techniques are summarized below.

a) Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
b) All onsite roads will be paved as soon as feasible or watered periodically or chemically stabilized.
c) All material transported offsite will be either sufficiently watered or securely covered to prevent excessive amounts of dust.
d) The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.

e) Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the workday to remove soil tracked onto the paved surface.

Rule 1113 (Architectural Coatings) – This rule requires manufacturers, distributors, and end-users of architectural and industrial maintenance coatings to reduce reactive organic gasses (ROG) emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories.

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

4.3.2 Air Quality (III) Environmental Checklist and Discussion

Would the Project:	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?	☐	☐	☐	☒

No Impact.

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the California Clean Air Act requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the NAAQS and CAAQS. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously mentioned, the Project Site is located within the San Bernardino County portion of the SoCAB, which is under the jurisdiction of the SCAQMD. The SCAQMD is required, pursuant to the federal Clean Air Act, to reduce emissions of criteria pollutants for which this region is in nonattainment. In order to reduce emissions for which the San Bernardino County portion of the SoCAB is in nonattainment, the SCAQMD has adopted the 2016 Air Quality Management Plan (AQMP). The 2016 AQMP establishes programs of rules and regulations directed at reducing air pollutant emissions and achieving the NAAQS and CAAQS. Pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including the Southern California Association of Governments' (SCAG) latest Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. According to the SCAQMD, in order to determine consistency with SCAQMD's air quality planning two main criteria must be addressed.

Criterion 1:

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

a) Would the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new air quality violations?

As shown in Tables 4.3-1 and 4.3-2 below (see the response to question (b)), the Proposed Project would result in emissions that would be below the SCAQMD regional and localized thresholds during construction. The Project would not be a source of operational emissions. Therefore, the Proposed Project would not result in an increase in the frequency or severity of existing air quality violations and would not have the potential to cause or affect a violation of the ambient air quality standards.

b) Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?

As shown in Table 4.3-1 below the Proposed Project would be below the SCAQMD regional thresholds for construction. Because the Project would result in less than significant regional emission impacts, it would not delay the timely attainment of air quality standards or AQMP emissions reductions.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the SoCAB focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining Project consistency focuses on whether or not the Proposed Project exceeds the assumptions utilized in preparing the forecasts presented its air quality planning documents. Determining whether or not a project exceeds the assumptions reflected in the 2016 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

a) Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the 2016 AQMP?

A project is consistent with regional air quality planning efforts in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the SCAQMD air quality plans. Generally, three sources of data form the basis for the projections of air pollutant emissions in the City of San Bernardino. Specifically, SCAG's Growth Management Chapter of the Regional Comprehensive Plan and Guide (RCPG) provides regional population forecasts for the region and SCAG's latest RTP/SCS provides socioeconomic forecast projections of regional population growth. The City of San Bernardino General Plan is referenced by SCAG in order to assist forecasting future growth in the City.

The Project is proposing the construction of a replacement waterline and associated features at the Patton State Hospital. As such, the Project would not be contributing to an increase in population, housing, or

employment growth. Therefore, the Project would not conflict with the land use assumptions or exceed the population or job growth projections used by SCAQMD to develop the 2016 AQMP.

b) Would the project implement all feasible air quality mitigation measures?

In order to further reduce emissions, the Project would be required to comply with emission reduction measures promulgated by the SCAQMD, such as SCAQMD Rules 402, 403, and 1113. SCAQMD Rule 402 prohibits the discharge, from any source whatsoever, in such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. SCAQMD Rule 403 requires fugitive dust sources to implement Best Available Control Measures for all sources, and all forms of visible PM are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. SCAQMD Rule 1113 requires manufacturers, distributors, and end-users of architectural and industrial maintenance coatings to reduce ROG emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories. As such, the Proposed Project meets this consistency criterion.

c) Would the project be consistent with the land use planning strategies set forth by SCAQMD air quality planning efforts?

The determination of AQMP consistency is primarily concerned with the long-term influence of a project on air quality. The AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. As shown in Tables 4.3-1 and 4.3-2 below, the Proposed Project would not exceed applicable SCAQMD thresholds of significance during construction. The Project would not be a source of operational emissions. Therefore. the Proposed Project would not result in a long-term impact on the region's ability to meet state and federal air quality standards. The Proposed Project's long-term influence would be consistent with the goals, objectives, and strategies of the SCAQMD's 2016 AQMP.

The Project would be consistent with the emission-reduction goals of the 2016 AQMP. There would be no impact and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐

Less than Significant Impact.

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the Project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

4.3.2.2 Construction Impacts

Regional Construction Emissions Analysis

Construction associated with the Proposed Project would generate short-term emissions of criteria air pollutants, including ROG, CO, NO_X, PM_{10}, and $PM_{2.5}$. Construction-generated emissions are temporary and short term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through construction of the Proposed Project: operation of the construction vehicles (i.e., tractors, excavators, pavers), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving activities. Construction activities would be subject to SCAQMD Rule 403, which requires taking reasonable precautions to prevent the emissions of fugitive dust, such as using water or chemicals, where possible, for control of dust during the clearing of land and other construction activities.

Construction-generated emissions associated the Proposed Project were calculated using the CARB-approved California Emissions Estimator Model (CalEEMod) computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See Appendix A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the Proposed Project are summarized in Table 4.3-1. Construction-generated emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Table 4.3-1. Construction-Related Emissions (Regional Significance Analysis)

Construction Year	Pollutant (pounds per day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Project Construction 2023	1.66	16.36	13.94	0.02	0.92	0.76
Project Construction 2024	0.62	5.97	7.31	0.01	0.36	0.25
SCAQMD Regional Significance Threshold	75	100	550	150	150	55

Table 4.3-1. Construction-Related Emissions (Regional Significance Analysis)						
Construction Year	**Pollutant (pounds per day)**					
	ROG	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Exceed SCAQMD Regional Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2020.4.0. Refer to Appendix A for Model Data Outputs.
Notes: Emission reduction/credits for construction emissions are applied based on the required implementation of SCAQMD Rule 403. The specific Rule 403 measures applied in CalEEMod include the following: sweeping/cleaning adjacent roadway access areas daily; washing equipment tires before leaving the construction site; water exposed surfaces three times daily; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied. Since CalEEMod does not differentiate between required best available control measures and mitigation measures, these applied best available control measures are incorporated into the CalEEMod mitigation module.
Emissions were taken from summer or winter, whichever is greater.

As shown in Table 4.3-1, emissions generated during Project construction would not exceed the SCAQMD's regional thresholds of significance. Therefore, criteria pollutant emissions generated during Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard, and no health effects from Project criteria pollutants would occur. This impact is less than significant. No mitigation is required.

Localized Construction Emissions Analysis

Sensitive receptors are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive land uses to the Project Site are residences located to the north.

In order to identify localized air toxic-related impacts to sensitive receptors, the SCAQMD recommends addressing Localize Significance Thresholds (LSTs) for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with Project-specific level proposed projects.

For this Project, the appropriate Source Receptor Area for the localized significance thresholds is the Central San Bernardino Valley (Source Receptor Area 34). LSTs apply to CO, NO_2, PM_{10}, and $PM_{2.5}$. The SCAQMD has produced lookup tables for projects that disturb one, two and five acres. The Project Site

spans approximately 900 square feet, which is less than one acre. Thus, the LST threshold value for a one-acre site was employed from the LST lookup tables.

LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. The nearest sensitive receptors to the Project Site are the residences located immediately adjacent to the existing concrete slab that accommodates reduced pressure double detector check and CLA_VAL pressure reducing valve assemblies, approximately 10 feet (3 meters) distant. Notwithstanding, the SCAQMD Methodology explicitly states: "It is possible that a project may have receptors closer than 25 meters. Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters." Therefore, LSTs for receptors located at 25 meters were utilized in this analysis. The SCAQMD's methodology clearly states that "offsite mobile emissions from a project should not be included in the emissions compared to LSTs." Therefore, for purposes of the construction LST analysis, only emissions included in the CalEEMod "onsite" emissions outputs were considered. Table 4.3-2 presents the results of localized emissions. The LSTs reflect a maximum disturbance of the entire Project Site daily at 25 meters from sensitive receptors.

Table 4.3-2. Construction-Related Emissions (Localized Significance Analysis)

Activity	Pollutant (pounds per day)			
	NOX	**CO**	**PM10**	**PM2.5**
Site Preparation	6.18	3.92	0.43	0.02
Excavation & Trenching	16.32	13.38	0.78	0.72
Pipe fittings & Instillation	6.41	7.09	0.32	0.29
Backfill & Paving	5.08	6.78	0.23	0.22
SCAQMD Localized Significance Threshold (1.0 acre of disturbance)	*118*	*667*	*4*	*3*
Exceed SCAQMD Localized Threshold?	**No**	**No**	**No**	**No**

Source: CalEEMod version 2020.4.0. Refer to Appendix A for Model Data Outputs.
Notes: Emission reduction/credits for construction emissions are applied based on the required implementation of SCAQMD Rule 403. The specific Rule 403 measures applied in CalEEMod include the following: sweeping/cleaning adjacent roadway access areas daily; washing equipment tires before leaving the construction site; water exposed surfaces three times daily; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied.

Table 4.3-2 shows that the emissions of these pollutants on the peak day(s) of construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, significant impacts would not occur concerning LSTs during construction activities. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative. The SCAQMD

Environmental Justice Enhancement Initiative program seeks to ensure that everyone has the right to equal protection from air pollution. The Environmental Justice Program is divided into three categories, with the LST protocol promulgated under Category I: Further-Reduced Health Risk. Thus, the fact that onsite Project construction emissions would be generated at rates below the LSTs for NO_x, CO, PM_{10}, and $PM_{2.5}$ demonstrates that the Project would not adversely impact Project vicinity receptors. This impact is less than significant and no mitigation is required.

4.3.2.3 Long-Term Operational Impacts

Regional Operational Emissions Analysis

The Proposed Project would not include the provision of new permanent stationary or mobile sources of emissions, and therefore, by its very nature, would not generate quantifiable air quality emissions from Project operations. The Project does not propose any buildings and therefore no permanent source or stationary source emissions. Once the Project is completed, there will be no resultant increase in automobile trips. No impact would occur.

Localized Operational Emissions Analysis

According to the SCAQMD localized significance threshold methodology, LSTs would apply to the operations of a project only if the project includes stationary sources or attracts substantial amounts of heavy-duty trucks that may spend long periods queuing and idling at the site (e.g., warehouse or transfer facilities). The Proposed Project does not include such uses. Therefore, in the case of the Proposed Project, the operational LST protocol is not applied. No impact would occur and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

Less than Significant Impact.

As previously described, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over age 65, children under age 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive land uses to the Project Site are residences located to the north.

4.3.2.4 Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Project-generated emissions of diesel particulate matter (DPM), ROG, NO_x, CO, and PM_{10} from the exhaust of off-road, heavy-duty diesel

equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; and other miscellaneous activities. The portion of the SoCAB which encompasses the Project area is designated as a nonattainment area for federal O_3 and PM_{10} standards and is also a nonattainment area for the state standards for O_3, PM_{10}, and $PM_{2.5}$ (CARB 2019). Thus, existing O_3, PM_{10}, and $PM_{2.5}$ levels in the SoCAB are at unhealthy levels during certain periods. However, as shown in Tables 4.3-1 and 4.3-2, the Project would not exceed the SCAQMD regional or localized significance thresholds for emissions.

The health effects associated with O_3 are generally associated with reduced lung function. Because the Project would not involve construction activities that would result in O_3 precursor emissions (ROG or NO_x) in excess of the SCAQMD thresholds, the Project is not anticipated to substantially contribute to regional O_3 concentrations and the associated health impacts.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The Project would not involve construction activities that would result in CO emissions in excess of the SCAQMD thresholds. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter (PM_{10} and $PM_{2.5}$) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary TAC of concern. Based on the emission modeling conducted, the maximum onsite construction-related daily emissions of exhaust PM_{10}, considered a surrogate for DPM and includes emissions of exhaust $PM_{2.5}$, would be 0.72 pounds per day for construction activities in 2023 and 0.25 pounds per day for construction activities in 2024 (see Appendix A). PM_{10} exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM. As with O_3 and NO_x, the Project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the SCAQMD's thresholds. Accordingly, the Project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related regional health effects for these pollutants.

4.3.2.5 Operational Air Contaminants

Operation of the Proposed Project would not result in the development of any substantial sources of air toxics. There are no stationary sources associated with the operations of the Project; nor would the Project attract mobile sources that spend long periods queuing and idling at the Project Site. There is no impact.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

No Impact.

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

According to the SCAQMD, land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Proposed Project does not include any uses identified by the SCAQMD as being associated with odors. During construction, the Proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. There is no impact and no mitigation is required.

4.3.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.4 Biological Resources

A biological reconnaissance survey was conducted on September 13, 2021, by an ECORP biologist who has experience surveying for common and sensitive biological resources in the region. A literature review was conducted prior to the survey using the CDFW's California Natural Diversity Database (CNDDB; CDFW 2021) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI; CNPS 2021) on September 10, 2021, to determine the special-status plant and wildlife species that have been documented near the Project Site. During the survey, the biologist walked the entire Project Site and an appropriately sized buffer, where accessible, to determine the vegetation communities and wildlife habitats on the Project Site. Additionally, ECORP's regulatory specialist conducted an aquatic resources delineation on the Project Site on September 15, 2021 to identify and describe the aquatic resources identified within the Project Site that may be regulated by the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the federal Clean Water Act (CWA), the State Water Resources Control Board (SWRCB) pursuant to Section 401 of the CWA, and the California Department of Fish and Wildlife (CDFW) pursuant to Section 1600 of the California Fish and Game Code.

4.4.1 Environmental Setting

The Project Site is located within the northeastern portion of a gated state facility, Patton State Hospital, and consists of a combination of ruderal habitat and previously developed areas. The eastern side of the Project Site consists of ruderal habitat and is adjacent to a residential neighborhood and a frequently used residential road, North Orange Street. The middle portion of the Project Site crosses through ruderal habitat, multiple dirt roads, and is located approximately 115 feet south of the eastern portion of the existing solar field. The western portion of the Project is located on the north side of an existing gravel parking lot approximately 15 feet south of the western portion of the solar field and is adjacent to multiple buildings, both occupied and abandoned. Four aquatic features are present within or near the Project Site; one of these aquatic features is within the Project boundaries and three are outside of the Project Site in the surrounding area. Within the Project Site, an artificial drainage ditch runs south between the solar field area and crosses under a dirt road on the Patton State Hospital property to where it continues south, outside of the Project Site, until it empties into a large detention basin. Outside of the Project boundaries, two artificial drainage ditches are located to the west of the Project Site, and one is located to the east. Riparian vegetation is present, outside of the Project Site, along the length of the channel of the artificial drainage ditch running east of the Project Site. Disturbances associated with previous solar field construction activities and the occupied hospital buildings are present and reduce the quality of the habitat present to be suitable for special-status wildlife and plant species. Overall, the Project site provides low-quality to marginal-quality habitat for wildlife and plant species.

4.4.1.1 Vegetation Communities

The Project Site supports ruderal habitat dominated by non-native species. The non-native species observed on the Project Site included short-podded mustard (*Hirschfeldia incana*), black mustard (*Brassica nigra*), prickly Russian thistle (*Salsola tragus*), castor bean (*Ricinus communis*), prickly lettuce (*Lactuca serriola*), and ripgut grass (*Bromus diandrus*). Native plant species occurring on the site included Jimson weed (*Datura wrightii*), common sunflower (*Helianthus annus*), annual bursage (*Ambrosia acanthicarpa*), and telegraph weed (*Heterotheca grandiflora*). Ruderal habitat is not considered a sensitive habitat or vegetation type. No sensitive vegetation communities are present on the Project Site.

A narrow patch of riparian habitat associated with an artificial drainage ditch is present to the south of the Project Site. The water supporting the riparian vegetation is associated with surface runoff due to irrigation as well as natural storm water flows collected from North Orange Street, east of the Project Site. The riparian vegetation in the drainage includes species such as mule fat (*Baccharis salicifolia*), willows (*Salix* sp.), and cattails (*Typha latifolia*).

4.4.1.2 Wildlife

Wildlife species on the Project Site were detected visually, aurally, and through sign (e.g., scat and tracks). Several wildlife species were detected on the site, including side-blotched lizard (*Uta stansburiana*), acorn woodpecker (*Melanerpes formicivorus*), American crow (*Corvus brachyrhynchos*), American kestrel (*Falco sparverius*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), Cassin's kingbird (*Tyrannus vociferans*), house finch (*Haemorhous mexicanus*), killdeer (*Charadrius vociferus*), mourning dove (*Zenaida macroura*), common raven (*Corvus corax*), California ground squirrel (*Otospermophilus beecheyi*), and desert cottontail (*Sylvilagus audubonii*).

4.4.1.3 Soils

The Natural Resources Conservation Service (NCRS) web soil survey reports the presence of one soil type within the Project Area, Hanford coarse sandy loam, 2 to 9 percent slopes. The Hanford series is characterized as a very deep, well-drained soil that forms in moderately coarse textured alluvium predominantly derived from granite. Hanford soils are typically found on stream bottoms, floodplains, and alluvial fans and have slopes of zero to 15 percent. These soil types are also typically used for agriculture dairies and urban development, and past use of the Project Site as farmland supports the presence of this soil series.

4.4.1.4 Potential Waters of the U.S.

Four aquatic features are present in the vicinity of the Project Site, with only one occurring within the proposed Project boundaries. The aquatic feature present within the Project boundaries is unlikely to be jurisdictional to the USACE, Regional Water Quality Control Board (RWQCB), or CDFW because it is an agricultural drainage ditch with ephemeral flows that is not relocated water of the state or excavated in a water of the state. Outside of the Project boundaries, three aquatic features are present surrounding the Project Site. One of these aquatic features is likely to be jurisdictional to the USACE, RWQCB, and CDFW,

because it is a relocated natural drainage feature. In addition, this feature contains potential wetlands along the length of the channel that meet the definitions of wetlands under the USACE criteria. The other two aquatic features present outside of the Project Site are unlikely to be jurisdictional to the USACE, RWQCB, or CDFW because they are agricultural drainage ditches with ephemeral flows that are not relocated waters of the state or excavated in a water of the state (ECORP 2021a; Appendix C).

4.4.1.5 Special-Status Plants

Twenty-three special-status plant species appeared in the literature review and database searches within five miles of the Project Site. A list was generated from the results of the literature review and the Project Site was evaluated for suitable habitat to support any of the plant species on the list. However, with the San Bernardino Mountains to the north, many of the species that appeared in the literature review were outside of the elevation range of the Project Site and are, thus, presumed absent because they only occur at higher elevations. In addition, the Project Site is subjected to regular disturbances, including weed abatement practices, and is dominated by non-native species with a few native species occurring that are known to thrive in disturbed areas. No special-status plant species were detected during the field investigation; however, the field survey was conducted outside the normal blooming period for the special-status plant species identified during the literature review. Due to the lack of habitat and because the site is subjected to frequent disturbances, it was determined that the Project Site does not support habitat for any of the special-status plant species identified during the literature search.

4.4.1.6 Special-Status Wildlife

Thirty-three special-status wildlife species from the literature review and database searches appeared within five miles of the Project Site. A list was generated from the results of the literature review and the Project Site was evaluated for suitable habitat to support any of the special status wildlife species on the list. However, with the San Bernardino Mountains to the north, many of the species that appeared in the literature review are presumed absent because they only occur in forest and montane habitats or at higher elevations. Of the 33 special-status wildlife species identified, one species has a high potential to occur and three species have low potential to occur in the Project Area. A discussion of the four species that have potential to occur on or adjacent to the Project Site are included below. The remaining 29 species are presumed absent from the Project Area.

The burrowing owl (*Athene cunicularia*; a California Species of Special Concern [SSC]) has a high potential to occur on or adjacent to the Project Site. The burrowing owl is typically found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Burrowing owls make use of mammal burrows, often those constructed by ground squirrels, and can also be found nesting in burrows made under concrete or other anthropogenic features. This species primarily feeds on large insects and small mammals but will also eat birds and amphibians. During the biological survey, no burrowing owls or suitable burrowing owl burrows were identified on the Project Site. One occupied burrowing owl burrow with sign of use (e.g., whitewash, pellets, feathers, bones of prey items) and eight potential burrowing owl burrows without sign of use were identified in the areas outside and adjacent to the Project Site; however, no live burrowing owls were observed. Suitable foraging habitat for this species

is present in the open, ruderal areas of the Project Site. The literature review showed that this species was documented in 2006 (Occurrence #1784) approximately 2.75 miles southwest of the Project Site (CDFW 2021). However, per a conversation with the Patton State Hospital Project Manager, Paul Warner, burrowing owls have previously been observed on and near the Project Site by staff and grounds crew personnel.

Three bat species, all of which are California SSC, have a low potential to occur on or adjacent to the Project Site: pocketed free-tailed bat (*Nyctinomops femorosaccus*), western mastiff bat (*Eumops perotis californicus*), and western yellow bat (*Lasiurus xanthius*). Pocketed free-tailed bats are typically found along rugged canyons, high cliffs, and semiarid rock outcroppings and roosts in crevices of outcrops and cliffs, shallow caves, and occasionally buildings. Western mastiff bats are typically found in arid and semiarid regions and are known to roost high above ground in rock and cliff crevices, shallow caves, and rarely in buildings. Western yellow bats are typically found in riparian woodlands in arid regions, oak or pinyon-juniper woodlands, and human developed areas and are known to roost in trees, especially in fan palms with untrimmed dead fronds. The ruderal vegetation on the Project Site provides low-quality foraging habitat for these three bat species. None of the bat species are expected to roost on the Project Site due to the lack of roosting structures and substrates. However, the abandoned buildings adjacent to the Project Site may provide roosting habitat for the pocketed free-tailed bat and the western mastiff bat. The western yellow bat is not expected to roost in areas adjacent to the Project Site due to the lack of large trees that provide roosting habitat for the species. Historic (older than 20 years) observations of these three bat species have been documented within five miles of the Project Site (CDFW 2021).

Suitable nesting habitat for numerous species of migratory birds protected under the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code is present on and adjacent to the Project Site in some of the shrubs, trees, surrounding buildings, and other anthropogenic structures (e.g., telephone poles). Therefore, nesting birds could use the Project Site during the nesting bird season (typically February 15 through August 31).

4.4.1.7 Wildlife Movement Corridors and Nursery Sites

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species from one habitat area to another. The Project Site is located within a fenced state facility and adjacent to areas of residential development; it does not connect. The Project Site is disturbed and isolated from large, contiguous blocks of native habitat. The Project Site contains little vegetative cover that is not typically conducive to wildlife travel or movement throughout the area. No migratory wildlife corridors were identified within the Project Site.

Nursery sites are locations where native wildlife congregate for the birthing, hatching, or rearing of young. Bat maternity roosts are considered nursery sites. The term "roost" refers to a structure (natural or man-made) that houses bats. The term "colony" refers to a group of bats inhabiting any given roost. A roost may house an individual bat or a colony. Day roosts are structures that protect bats from predators and the elements during the day. A maternity roost is a type of day roost used seasonally by a colony of females that gather to give birth and raise young. Maternity colonies in Southern California typically form in early spring, grow in number as more adult female bats arrive and give birth, and disband in the fall

when the young can fly and have learned to forage. In this region, maternity colonies may be composed of a few dozen to thousands of individuals of one or more species in a given structure. Buildings often contain crevices and cavities of various sizes that are used by maternity-roosting bats because they provide protection from predators and the elements as well as have stable internal temperatures for the bats to live in and raise young. Suitable habitat for a bat maternity roosting site was identified adjacent to the Project Site in the abandoned buildings approximately 190 feet south of the western side of the waterline alignment. For safety reasons, the inside of the abandoned buildings were not inspected for bat sign (e.g., guano, staining) at the time of the biological reconnaissance survey.

4.4.2 Biological Resources (IV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated.

Nesting Birds

There is a potential for the Proposed Project to cause adverse impacts to nesting raptors and birds, which are protected under the MBTA and the California Fish and Game Code. Direct impacts to nesting raptors and birds may occur in the form of injury or mortality due to vegetation removal and collisions with vehicles and equipment. Indirect impacts to nesting raptors and birds could occur through habitat loss and degradation, increased human and vehicular activities, noise, dust, and ground vibrations and result in nest abandonment, loss of young, altered behavior of the adult birds, and loss of foraging opportunities. Impacts to nesting raptors and birds resulting from the Project would be significant without mitigation. Impacts to nesting birds would be less than significant with the incorporation of Mitigation Measure **BIO-1**.

Burrowing Owl

The species has a high potential to occur on the Project Site based on the presence of suitable habitat, presence of suitable burrows in the areas adjacent to the Project Site (including one burrow with sign of burrowing owl use), and previously documented records of this species within five miles of the Project Site (CDFW 2021). Although no live burrowing owls were documented during the survey, it is possible that, due to their migratory and highly mobile nature, the species could use and/or occupy the Project Site prior to the start of ground-disturbing Project activities. If present, Project-related direct impacts to burrowing owl could occur through mortality or injury due to collisions with vehicles and equipment or entombing inside burrows. Indirect impacts to this species may occur in the form of ground vibrations, noise, dust, and increased human and vehicular activity during construction. These impacts would be

considered significant. Implementation of Mitigation Measure **BIO-2** would reduce impacts to this species to a less than significant level.

Special Status Bat Species

While there is potential for western yellow bat to forage within the Project Site, no roosting habitat for this species would be directly or indirectly affected by the Proposed Project. Therefore, there would be no Project-related impacts to western yellow bat. Pocketed free-tailed bat and western mastiff bat primarily roost in rocky cliffs and hillsides; however, these species have been documented roosting in buildings. The abandoned buildings adjacent to the Project Site may provide roosting habitat for these species. If a maternity roost is present in the buildings, indirect impacts to these bat species could occur as a result of the Project through increased human and vehicular activities, noise, and ground vibrations while roosting, which may disrupt normal young-rearing behaviors and affect the bats' ability to raise and care for their young. Impacts to pocketed free-tailed bat and western mastiff bat would be less than significant with the incorporation of Mitigation Measure **BIO-3**.

Would the Project:	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, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒

No Impact.

The Project Site consisted entirely of ruderal habitat predominated by non-native species. The Project Site did not contain any riparian habitat or sensitive natural communities that would need to be preserved and no Project-related impacts to these types of resources are anticipated with the development of the Project.

Would the Project:	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?	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated.

The artificial drainage ditch present on the Project Site is unlikely to be jurisdictional to the USACE, RWQCB, or CDFW. One artificial drainage ditch, likely jurisdictional to the USACE, RWQCB, and CDFW, is present just east of the Project Site along Orange Street. No direct impacts to the potentially jurisdictional

drainage ditch are anticipated as a result of the Project. Indirect impacts to the potentially jurisdictional drainage ditch could occur in the form of sediment movement or trash deposited within the channel associated with vehicular use of the dirt road, excavation, grading, and construction activities. Impacts to the potentially jurisdictional drainage ditch would be less than significant with the incorporation of Mitigation Measure **BIO-4.**

Would the Project:	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?	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated.

The Project Site is located within a fenced government facility and adjacent to residential developments, both containing existing disturbances (e.g., paved and dirt roads and urban development). Due to the presence of the existing fence and surrounding urban development, the Project Site does not provide wildlife movement or travel opportunities. Furthermore, the Project Site does not provide substantial amounts of vegetative cover or natural corridor features (such as ridgelines or large washes) that are conducive to wildlife movement throughout the area. Loss of the habitat within the Project Site would not result in a significant impact to regional or local wildlife travel. Therefore, no impacts to wildlife corridors are expected to occur during the development of the Project site.

The western side of the Project Site is located adjacent to abandoned buildings with potential bat roosting habitat in the structures. During bat maternity season (March 1 to September 30), day roosts may be considered nursery sites and Project activities could affect bat maternity colonies using the buildings as roost sites. Project-related impacts to bat maternity colonies that could cause a colony to abandon a roost site may occur indirectly through increased noise, increased human activity, and ground vibrations and could be significant without mitigation. In order to reduce impacts to bat maternity colonies to a less than significant level, Mitigation Measure **BIO-3** will be implemented.

The Project Site and adjacent areas provide suitable nesting habitat for raptors and birds protected by the California Fish and Game Code and the federal MBTA. If ground-disturbing activities occur during the nesting bird season, typically from February 1 through August 31, Project-related impacts would be significant. Direct impacts to nesting raptors and birds may occur in the form of injury or mortality due to vegetation removal and possible collisions with vehicles and equipment. Indirect impacts to nesting raptors and birds could occur through habitat loss and degradation, increased human and vehicular activities, noise, dust, and ground vibrations and result in nest abandonment, loss of young, altered behavior of the adult birds, and loss of foraging opportunities. Impacts to nesting raptors and birds resulting from the Project would be significant without mitigation. Impacts to nesting birds would be less than significant with the incorporation of Mitigation Measure **BIO-1**.

Would the Project:	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?	☐	☐	☐	☒

No Impact.

The Project is not subject to any local policies or ordinances protecting biological resources. Therefore, no impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

No Impact.

The Project Site is not located within a Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP). Therefore, development of the Project Site would not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State HCP. No impact would occur.

4.4.3 Mitigation Measures

BIO-1: **Pre-Construction Nesting Bird Survey:** If construction or other Project activities are scheduled to occur during the bird breeding season (February 1 through August 31), a pre-construction nesting bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests will not be disturbed or destroyed during implementation of Project activities. The survey shall be completed no more than three days prior to initial ground disturbance and shall include the Project Site and adjacent areas where Project activities have the potential to directly or indirectly affect active nests due to construction activity, noise, dust, or ground disturbance. The biologist shall perform a pedestrian survey of the entire Project Site and an appropriately sized buffer, where accessible, to achieve 100 percent visual coverage of the survey area. If an active nest is identified, a qualified avian biologist shall establish an appropriately sized non-disturbance limit buffer around the nest using flagging or staking. The size of the non-disturbance buffer will be based on nest location, expected project activities and timing, and bird species and tolerance to human-related activities. Project activities shall not occur within any disturbance limit buffer zones until the nest is deemed inactive by the qualified biologist. Periodic monitoring of the active nest(s) by the biologist may be necessary to determine nest status and success.

BIO-2: **Pre-Construction Survey for Burrowing Owl:** Pre-construction surveys for burrowing owl shall be conducted between 14 and 30 days and again no more than 24 hours prior to the start of ground-disturbing activities to determine whether burrowing owls are present on or within 500 feet of the Project Site. The surveys shall follow the methods described in the CDFW's Staff Report on Burrowing Owl Mitigation (CDFW 2012). The surveys shall be conducted by a qualified biologist with experience surveying for and identifying burrowing owls and their sign. If burrowing owls and/or suitable occupied burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified on the Project Site during the survey and impacts to the species or occupied burrows are unavoidable, additional mitigation measures consistent with those outlined in the Staff Report (CDFW 2012) may need to be implemented, such as establishing a non-disturbance buffer around occupied burrows, seasonal work restrictions, or passive relocation during the non-nesting season. Coordination with CDFW would need to occur if passive relocation is found to be necessary. If the pre-construction surveys result in no detections of live burrowing owls and no sign of owl use of potential burrows on the site, then Project activities may commence.

BIO-3: **Pre-Construction Survey for Special-Status Bat Species and Bat Maternity Colonies:** Within 30 days prior to the start of ground-disturbing activities a qualified bat biologist will conduct a bat habitat assessment at the abandoned buildings adjacent to the Project Site to determine the potential for suitable bat roosting habitat and the presence of roosting bats. If no suitable roosting habitat is identified, no further measures are necessary. If suitable roosting habitat and/or evidence of bat occupation is present, the biologist will conduct follow-up nighttime surveys to determine the species present and to evaluate the size and significance of the colony. Focused surveys will include a combination of nighttime emergence counts and acoustic techniques appropriate for the roosting habitat and time of year. If roosting bats are determined to be present, the qualified bat biologist will prepare a Bat Management Plan that will outline project-specific protective measures to avoid and minimize impacts to roosting bats during project construction.

BIO-4: **Potentially Jurisdictional Drainage Ditch Avoidance:** Prior to the start of ground-disturbing activities, the boundary of the potentially jurisdictional drainage ditch (east of the Project Site along Orange Street) shall be clearly demarcated by construction crews, using construction fence or other highly visible method. It is recommended that silt fencing or another temporary barrier be placed at a distance of 10 feet from the boundary of this drainage channel. During construction activities, this drainage ditch shall also be avoided by construction crews.

4.5 Cultural Resources

A Cultural Resources Survey Report was prepared for the Project (ECORP 2021b). The report included a cultural resources study including a records search of the California Historical Resources Information System (CHRIS) conducted by the staff at the South Central Coastal Information Center (SCCIC), a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search, a review of historic aerial

photographs and maps, and a pedestrian survey of the Project Area. The discussion below is based on this cultural report and is attached to this IS/MND as Appendix D.

4.5.1 Environmental Setting

The Project Site is located in an urban setting in the City of San Bernardino, with residential neighborhoods to the north and east, and residential and commercial uses to the south and west. The Project Site is bordered by Highland Avenue to the south, Victoria Avenue to the west, and Orange Street to the east. Elevations range from 1,392 to 1,439 feet above mean sea level. Sand Creek is located 0.6 mile west of the Project Site in the foothills of the San Bernardino Mountains, surrounded by commercial and residential developments. The Project Site is located in the foothills of the San Bernardino Mountains.

4.5.1.1 Regional Pre-Contact History

It is generally believed that human occupation of California began at least 10,000 years before present (BP). The archaeological record indicates that between approximately 10,000 and 8,000 BP, a predominantly hunting economy existed, characterized by archaeological sites containing numerous projectile points and butchered large animal bones (ECORP 2021b). Around 8,000 BP there was a shift in focus from hunting toward a greater reliance on plant resources. Archaeological evidence of this trend consists of a much greater number of milling tools (e.g., metates and manos) for processing seeds and other vegetable matter (ECORP 2021b). Archaeological evidence indicates that reliance on both plant gathering and hunting continued as in the previous period, with more specialized adaptation to particular environments in sites dating to after about 5,000 BP (ECORP 2021b).

4.5.1.2 Local Project Site History

Patton State Hospital is located on a portion of land known as Rancho San Bernardino, purchased from the Mexican government by Don Antonio Maria Lugo and his three sons in 1842. In 1889, then California Governor Robert W. Waterman passed a bill providing $350,000 for the purchase of land and construction of a mental health facility in southern California. The hospital property was then purchased for $140,000 in 1890. Construction of the original hospital begun on December 15, 1890, and the Southern California State Asylum for the Insane and Inebriates opened on August 1, 1893. The following day the first 100 patients, transferred from northern California institutions, arrived.

By 1905 an administration building, an east wing to the hospital, and several outbuildings had been built, completing the original complex. At that time, the patient population had grown to around 800. Expansion continued throughout the following decades. Land purchases for the institution grew to 670 acres and included farmland for vegetable crops, fruit orchards, and livestock. From the 1920s through the 1940s, many new buildings were constructed to provide service facilities as well as patient and staff housing.

The facility was renamed Patton State Hospital in 1927 in memory of Harry W. Patton, an early member of the hospital's board of trustees. The patient population at Patton had grown to more than 5,000 by the 1950s. While a new administration building and patient residence buildings were being constructed, lack of funds for the maintenance of some of the original turn-of-the-century buildings led to their demolition.

Eighteen additional early 20th century buildings were declared unsafe by the state fire marshal in 1963, resulting in further demolition as well as a mandatory 35-percent reduction of the patient population.

On January 19, 1981, the name "Patton" was first recorded by the USGS as a "City." The entirety of the "City" of Patton is located within the grounds of Patton State Hospital. Patton State Hospital has its own zip code and for postal purposes mail is addressed to the "town" of Patton, California. For tax, police, and legal purposes the hospital is at 3102 East Highland Avenue, Patton, California 92369 (USGS 2016; City of San Bernardino n.d.). The hospital currently operates approximately 1,527 beds; the hospital does not accept voluntary admissions. Approximately 2,380 staff, with 34 different job classifications provide around the clock care.

4.5.2 Known Historic and Cultural Resources at the Project Site

A records search of the California Historical Resources Information System at the South Central Coastal Information Center revealed that 34 cultural resources studies were previously conducted within one mile of the Project Site. One previously conducted cultural resources study overlaps the Project Site. As a result of those studies, 30 cultural resources were previously recorded within one mile of the Project Site; however, no cultural resources were previously identified within the Project Site itself. Additionally, no cultural resources were recorded as a result of the field survey.

4.5.3 Cultural Resources (V) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated.

CEQA Guidelines Section 15064.5 requires the lead agency to consider the effects of a project on historical resources. A significant impact would occur if a proposed project would cause a substantial adverse change through physical demolition, destruction, relocation, or alteration of the resource. A historical resource is defined as any building, structure, site, or object listed in or determined to be eligible for listing in the CRHR or determined by a lead agency to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California.

The CHRIS records search for the Project Site and a one-mile radius identified that there have been 34 cultural resources studies conducted within one mile of the Project Site. Of the 34 previous cultural resource studies conducted, only one overlaps the Project Site. The results of the CHRIS records search indicate that the entire property was previously surveyed for cultural resources; however, the prior study was conducted 18 years ago under outdated standards.

The CHRIS records search also determined that 30 previously recorded cultural resources are located within one mile of the Project Site; however, none of these resources overlap with the Project Site.

In addition, historic topographic maps and aerial photographs were reviewed to assess the potential for historic structural resources and historic archaeological resources. The review indicates that the area surrounding the Project Site remained relatively undeveloped until at least 1899. A photograph taken in 1953 reveals the Project Site being used as a citrus grove. Photographs taken between 1954 and 1988 depict the Project Site as a citrus grove in an area of encroaching residential development. A photograph from 1930 show an irrigation ditch passing through the Project Site. Historic aerial photographs from 1980 and 1994 show that the citrus grove on the Project Site appears to have been abandoned and several trees are dying off. Aerial photographs from 2014 show two solar arrays to the north and several unpaved access roads crossing through and adjacent to the Project Site.

The results of the search of the Sacred Lands File (SLF) from the Native American Heritage Commission (NAHC) were positive, indicating the presence of Native American Sacred Lands within the Project Site. In addition to the SLF search, ECORP also surveyed the Project Site for cultural resources on September 16, 2021. No pre-contact or historic period cultural resources were identified as a result of the survey (ECORP 2021b, Appendix D).

While no cultural resources were recorded within the Project Site as a result of the CHRIS records search and field survey, ground disturbance associated with installation of the pipeline has the potential to impact previously unknown subsurface historic resources should any be present. Mitigation measure **CUL-1** is provided below to reduce potential impacts to a level that is considered less than significant.

Would the Project:	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?	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated.

As stated above, the CHRIS records search conducted by the SCCIC indicated that 34 cultural resources studies have been performed within a one-mile radius of the Project Site, one of which overlapped the Project Site. While no historic resources were identified, the SCCIC has a record of 30 historic resources recorded within the one-mile search radius. No resources have been previously mapped within the Project Site. Of the 30 historic resources identified within one-mile of the Project Site, 29 are historic-period sites and one is a multicomponent site. The historic-period resources are associated with early European-American ranching, residential development, roads, and water conveyance systems. The multicomponent site consists of a Native American village site, cemetery, and an adobe house. As discussed above, no cultural resources were discovered within the Project Site at the time of the pedestrian survey.

While no cultural resources were recorded within the Project Site as a result of the CHRIS records search and field survey, ground disturbance associated with installation of the pipeline has the potential to impact previously unknown subsurface historic resources should any be present. Mitigation Measures **CUL-1**, **CUL-2**, and **CUL-3** are provided below to reduce potential impacts to a level that is considered less than significant.

Would the Project:	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 dedicated cemeteries?	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated.

Through a CHRIS records search and background research, no human remains are known to exist within the Project Site, however, the discovery of human remains is always a possibility during ground disturbing activities. If human remains are discovered, work shall halt in that area and the procedures set forth in the California Public Resources Code (Section 5097.98) and State Health and Safety Code (Section 7050.5) will be followed. With adherence to Mitigation Measure **CUL-3** impacts to human remains would be less than significant.

4.5.4 Mitigation Measures

CUL-1: **Cultural or Archaeological Resource Discovery.** In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed within TCR-1, regarding any pre-contact and/or post-contact (i.e., historic) finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

CUL-2: **Significant Pre-Contact and/or Post-Contact Cultural or Archaeological Resource Discovery.** If significant pre-contact and/or post-contact cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to SMBMI for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

CUL-3: **Inadvertent Discovery of Human Remains.** If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

4.6 Energy

4.6.1 Environmental Setting

Energy consumption is analyzed in this Initial Study due to the potential direct and indirect environmental impacts associated with the Project. Such impacts include the depletion of nonrenewable resources (oil, natural gas, coal, etc.) and emissions of pollutants during the construction phase. The impact analysis focuses on the source of energy that is relevant to the Proposed Project: the equipment-fuel necessary for Project construction.

4.6.2 Fuel Consumption

4.6.2.1 Electricity/Natural Gas Services

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. Natural gas provides California with a majority of its electricity followed by renewables, large hydroelectric and nuclear. (California Energy Commissions [CEC] 2018). Southern California Edison (SCE) provides electrical services to the City of San Bernardino through state-regulated public utility contracts. SCE, the largest subsidiary of Edison International, is the primary electricity supply company for much of Southern California. It provides 14 million people with electricity across a service territory of approximately 50,000 square miles.

The Southern California Gas Company provides natural gas services to the Project Area. As the nation's largest natural gas distribution utility, SoCalGas delivers natural gas energy to 21.6 million consumers through 5.9 million meters in more than 500 communities. The SoCalGas' service territory encompasses approximately 20,000 square miles throughout Central and Southern California, from Visalia to the Mexican border.

The California Public Utilities Commission (CPUC) regulates SCE. The CPUC has developed energy efficiency programs such as smart meters, low-income programs, distribution generation programs, self-generation incentive programs, and a California solar initiative. Additionally, the CEC maintains a power plant data base that describes all of the operating power plants in the state by county. San Bernardino County contains 136 power plants generating electricity, of which 15 are natural gas-fired, 102 are solar-powered, one is biomass-powered, three are wind-powered, and 14 are hydro-powered (CEC 2021).

Existing Transmission and Distribution Facilities

The components of transmission and distribution systems include the generating facility, switching yards and stations, primary substation, distribution substations, distribution transformers, various sized transmission lines, and the customers. The United States contains over a quarter million miles of transmission lines, most of them capable of handling voltages between 115 kilovolts (kv) and 345 kv, and a handful of systems of up to 500 kv and 765 kv capacity. Transmission lines are rated according to the amount of power they can carry, the product of the current (rate of flow), and the voltage (electrical pressure). Generally, transmission is more efficient at higher voltages. Generating facilities, hydro-electric dams, and power plants usually produce electrical energy at fairly low voltages, which is increased by

transformers in substations. From there, the energy proceeds through switching facilities to the transmission lines. At various points in the system, the energy is "stepped down" to lower voltages for distribution to customers. Power lines are either high voltage (115, 230, 500, and 765 kv) transmission lines or low voltage (12, 24, and 60 kv) distribution lines. Overhead transmission lines consist of the wires carrying the electrical energy (conductors), insulators, support towers, and grounded wires to protect the lines from lightening (called shield wires). Towers must meet the structural requirements of the system in several ways. They must be able to support both the electrical wires, the conductors, and the shield wires under varying weather conditions, including wind and ice loading, as well as a possible unbalanced pull caused by one or two wires breaking on one side of a tower. Every mile or so, a "dead-end" tower must be able to take the strain resulting if all the wires on one side of a tower break. Every change in direction requires a special tower design. In addition, the number of towers required per mile varies depending on the electrical standards, weather conditions, and the terrain. All towers must have appropriate foundations and be available at a fairly regular spacing along a continuous route accessible for both construction and maintenance. A right-of-way is a fundamental requirement for all transmission lines. A right-of-way must be kept clear of vegetation that could obstruct the lines or towers by falling limbs or interfering with the sag or wind sway of the overhead lines. If necessary, land acquisition and maintenance requirements can be substantial. The dimensions of a right-of-way depends on the voltage and number of circuits carried and the tower design. Typically, transmission line rights-of-way range from 100 to 300 feet in width. The electric power supply grid within San Bernardino County is part of a larger supply network operated and maintained by SCE that encompasses a large portion of the Southern California region. This system ties into yet a larger grid known as the California Power Pool that connects with the San Diego Gas and Electric and Pacific Gas and Electric Companies. These companies coordinate the development and operation, as well as purchase, sale, and exchange of power throughout the State of California. Within San Bernardino County, SCE owns most of the transmission and distribution facilities. Two major 500 kilovolt (kv) transmission lines pass through the county, connecting San Bernardino County to the national power grid, allowing the wheeling of power to locations where power is in demand (CEC 2021).

The California Independent System Operator (CAISO) manages the flow of electricity across the high-voltage, long-distance power lines (high-voltage transmissions system) that make up 80 percent of California's and a small part of Nevada's grid. This nonprofit public benefit corporation keeps power moving to and throughout California by operating a competitive wholesale electricity market, designed to promote a broad range of resources at lower prices, and managing the reliability of the electrical transmission grid. In managing the grid, CAISO centrally dispatches generation and coordinates the movement of wholesale electricity in California. As the only independent grid operator in the western U.S., CAISO grants equal access to 26,000 circuit miles of transmission lines and coordinates competing and diverse energy resources into the grid where it is distributed to consumers. Every five minutes, CAISO forecasts electrical demand and dispatches the lowest cost generator to meet demand while ensuring enough transmission capacity for delivery of power.

CAISO conducts an annual transmission planning process that uses engineering tools to identify any grid expansions necessary to maintain reliability, lower costs or meet future infrastructure needs based on public policies. CAISO engineers design, run and analyze complex formulas and models that simulate grid use under wide-ranging scenarios, such as high demand days coupled with wildfires. This process includes

evaluating power plant proposals submitted for study into the interconnection queue to determine viability and impact to the grid. The long-term comprehensive transmission plan, completed every 15 months, maps future growth in electricity demand and the need to meet state energy and environmental goals that require the CAISO grid to connect to renewable-rich, but remote areas of the Western landscape. CAISO promotes energy efficiency through resource sharing. CAISO electricity distribution management strategy designed so that an area with surplus electricity can benefit by sharing megawatts with another region via the open market. This allows the dispatch of electricity as efficiently as possible. By maximizing megawatts as the demand for electricity increases, CAISO helps keep electricity flowing during peak periods.

4.6.3 Energy Consumption

Fuel consumption during Project construction (off-road fuel) is analyzed in this analysis as the primary source of energy use that is relative to the Proposed Project. Off-road fuel consumption for the "construction and mining equipment" sector in San Bernardino County from 2016 to 2020 is shown in Table 4.6-1. Fuel consumption has increased between 2016 and 2020.

Table 4.6-1. Off-Road Fuel Consumption in San Bernardino County 2016-2020

Year	Off-Road Fuel Consumption (gallons)
2020	22,844,072,833
2019	21,323,524,653
2018	19,857,004,473
2017	18,448,316,481
2016	17,089,547,716

Source: CARB 2021

4.6.4 Energy (VI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐

Less than Significant Impact.

The impact analysis focuses on the source of energy that is relevant to the Proposed Project: equipment-fuel necessary for Project construction. Addressing energy impacts requires an agency to make a determination as to what constitutes a significant impact. There are no established thresholds of significance, statewide or locally, for what constitutes a wasteful, inefficient, and unnecessary consumption

of energy for a proposed land use project. For the purpose of this analysis, the amount of fuel necessary for Project construction is calculated and compared to the off-road fuel consumption for the construction and mining equipment sector consumed in San Bernardino County. The amount of total construction-related fuel use was estimated using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1. (See Appendix F). Energy consumption associated with the Proposed Project is summarized in Table 4.6-2.

Table 4.6-2. Proposed Project Fuel Consumption

Energy Type	Annual Fuel Consumption (gallons)	Percentage Increase Countywide
Project Construction 2023	19,409	0.00008%
Project Construction 2024	4,335	0.00001%

Source: EMFAC2021 (CARB 2021). See Appendix F.
Notes: The Project increases in automotive fuel consumption are compared with the countywide fuel consumption for the construction and mining equipment sector in 2020, the most recent full year of data.

Fuel necessary for Project construction would be required for the operation and maintenance of construction equipment and the transportation of materials to the Project Site. The fuel expenditure necessary to construct the physical infrastructure would be temporary, lasting only as long as Project construction. As shown, the Project's fuel consumption during the construction phase is estimated to be 19,409 gallons for construction in 2023 and 4,335 gallons for construction in 2024. This would increase the combined annual countywide fuel use by 0.00008 percent and 0.00001 percent respectively. As such, Project construction would have a nominal effect on local and regional energy supplies. No unusual Project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the state. Construction contractors would purchase their gasoline and diesel fuel from local suppliers and would judiciously use fuel supplies to minimize costs due to waste and subsequently maximize profits. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and requiring recycling of construction debris would further reduce the amount of transportation fuel demand during Project construction. For these reasons, it is expected that construction fuel consumption associated with the Proposed Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

None of the components of the Proposed Project would include the provision of new buildings or any other substantial energy consuming components. Nor would the Project instigate new gasoline-consuming vehicle trips over existing conditions. Therefore, by its nature, the Project would not cause wasteful, inefficient, and unnecessary consumption of energy from long-term operations over existing conditions.

For these reasons, this impact would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

No Impact.

As previously described, the impact analysis contained herein focuses on the fuel consumption needed for Project construction. As shown, Project fuel consumption would be negligible and would not be considered inefficient, wasteful, or unnecessary with regard to energy. The Project would not conflict or obstruct any local or state plans for renewable energy or energy efficiency. For these reasons, this impact would be less than significant.

4.6.5 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.7 Geology and Soils

4.7.1 Environmental Setting

4.7.1.1 Geomorphic Setting

Patton State Hospital is situated within the San Bernardino Basin at the base of the west-northwest trending San Bernardino Mountains. The San Bernardino Basin is the alluviated lowland that extends northwestward from Yucaipa to the Devore area at the foot of the Cajon Pass. It is bounded by the San Andreas Fault on the north and the San Jacinto Fault and Rialto-Colton groundwater barrier on the southwest.

The State of California is split into eleven unique geomorphic provinces, a naturally defined geologic region that displays a distinct landscape of landform. Patton State Hospital is located in the Transverses Ranges Geologic Province (California Department of Conservation 2002) The Transverse Ranges are an east-west trending series of steep mountain ranges and valleys. The province extends offshore from San Miguel and Santa Cruz islands to its eastern extension, the San Bernardino Mountains, which has been displaced to the south along the San Andreas Fault (California Department of Conservation 2002).

The hospital grounds are located on relatively level to very gently sloping ground surface trending generally to the southwest. There is approximately 110 feet of elevation relief across the 243-acre property.

The area has been mapped by Dibblee (2004) and Morton & Miller (2003) as being underlain by late Pleistocene to middle Holocene age alluvial fan deposits consisting of sand, silt and gravel. Soils on the Project Site are Tujunga gravelly loamy sand (Natural Resource Conservation Service 1980).

4.7.1.2 Regional Seismicity and Fault Zones

An "active fault," according to California Department of Conservation, Division of Mines and Geology, is a fault that has indicated surface displacement within the last 11,000 years. A fault that has not shown geologic evidence of surface displacement in the last 11,000 years is considered "inactive."

The Transverse Ranges Geomorphic Province, where the Project is located, is a geologically young and seismically active area. The associated seismic activity is the result of movement along the San Andreas Fault System. No active or potentially active faults have been mapped on the Project Site. The hospital is not located within an Alquist-Priolo Earthquake Fault Zone; however, the San Andreas Alquist-Priolo Earthquake Fault Zone is located approximately 1,500 feet northeast of the hospital's northern boundary.

4.7.1.3 Soils

A site-specific geotechnical investigation report was prepared by Earth Systems Pacific in 2021 (Earth Systems Pacific 2021, Appendix G). The field exploration indicates that soils along the Proposed Project alignment predominately consist of silt and sand with varying amounts of sand, silt, and a minor amount of silty clay to the maximum depth of exploration of 51.5 feet below ground surface (BGS). The report found that the coarse grained (sandy) soils encountered were very loose to very dense. The soils were generally moist throughout the explored depth. Based on laboratory test results, the Project Site's soils are considered to have moderate potential for collapse upon inundation and are considered to have very low expansion potential (Earth Systems Pacific 2021).

The Project Site lies within an area of high potential for wind erosion. Watering the surface keeping it wet and placing silt fencing and wind breaks normally reduces the potential for this hazard.

Shallow groundwater is not present under the Project Site and was not encountered or reported in the geotechnical evaluation, which reported soil conditions to a depth of 51.5 feet BGS. The historical high groundwater in the site vicinity is approximately 100 feet below ground surface (Earth Systems Pacific 2021).

4.7.1.4 Paleontological Resources

A paleontological records search was conducted by Western Science Center (Western Science Center 2021, Appendix E) for the Proposed Project to determine if paleontological resources were present in or adjacent to the Project Site and assess the sensitivity of the Project Site for undiscovered paleontological resources. The Western Science Center database results, more details about the geology, and the probability of finding fossil specimens can be found in the assessment in Appendix E.

4.7.2 Geology and Soils (VII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒

i) No Impact.

The State Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) prohibits the development of structures for human occupancy across Holocene-active fault traces (or faults that have had surface displacement within the last 11,000 years). Under this Act, the California Geological Survey (CGS) has established "Zones of Required Investigation" on either side of an active fault that delimits areas susceptible to surface fault rupture. The zones are referred to as Earthquake Fault Zones (EFZs) and are shown on official maps published by the CGS (CGS 2021). Surface rupture occurs when the ground surface is broken due to a fault movement during an earthquake; typically, these types of hazards occur within 50 feet of an active fault.

The Project Site does not lie within any mapped EFZs according to the available data (CGS 2021). The closest EFZ is associated with the San Andreas Fault located 1,500 feet northeast of the Project Site (CGS 2021). Although the area could be affected by earthquakes or seismic ground shaking, no Holocene-active faults are present within the Project Site. No impact would occur.

ii) Less than Significant Impact.

The Project is located in a seismically active region that is known for its many active faults and historic seismicity. Two late Quaternary faults are located in proximity to the Project Site, including the San Andreas Fault, located one mile northeast of the Project Site, and the San Jacinto Fault, located approximately eight miles west of the Project Site (CGS 2021). Ground shaking from these faults and others throughout the region resulting from an earthquake could impact the Proposed Project. The degree of ground shaking that is felt at a given site depends on the distance from the earthquake source

(epicenter), the magnitude of the earthquake, the type of subsurface material on which the site is situated, and topography. Ground shaking could result in severe damage to the water line if subjected to strong horizontal movement that exceeds the design standards, which in turn could result in water main breakage and associated flooding hazards. However, the Proposed Project would be constructed in accordance with the California Building Code and City of San Bernardino Construction Standards, which would minimize the potential for seismically induced water main damage. In addition, Project construction and operation would not increase or exacerbate the potential for strong seismic ground shaking to occur. The Project would not directly or indirectly cause potential adverse effects involving seismically induced ground shaking and impacts would be less than significant.

iii) No Impact.

Liquefaction takes place when loosely packed, water-logged sediments at or near the ground surface lose their strength in response to strong ground shaking. Liquefaction occurring beneath buildings and other structures can cause major damage during earthquakes. Potential hazards due to liquefaction include loss of bearing strength beneath structures, possibly causing foundation failure and/or significant settlements and differential settlements.

The Project Site is not currently zoned by the California Geological Survey for seismic hazards such as liquefaction or listed as an area susceptible to liquefaction by the City of San Bernardino General Plan (2005). No impact would occur.

iv) No Impact.

The Harrison Peak Quadrangle, in which the subject site is located, is not currently zoned by the California Geological Survey for seismic hazards such as seismically induced landslides (CGS 2021). There are no slopes within the general sphere of influence of the planned improvements. No landslides are mapped or were noted in areas of planned improvements and therefore do not pose a risk. No impact would occur.

Would the Project:	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?	☐	☐	☒	☐

Less than Significant Impact.

Construction of the Proposed Project would require land-disturbing activities such as trenching and excavation that could increase the susceptibility of soils to erosion by wind and/or water, and subsequently result in soil loss or erosion. The Proposed Project would include the use of standard construction BMPs, which would reduce soil erosion and loss of topsoil during construction. Impacts would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒

No Impact.

As discussed above, there is no data to suggest that the area around the Project Site is susceptible to landslides, lateral spreading, subsidence, liquefaction or collapse. No impact would occur.

Would the Project:	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?	☐	☐	☐	☒

No Impact.

Soils at the Project Site are not expansive (DGS 2012). No impact would occur.

Would the Project:	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 waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

No Impact.

The Proposed Project does not include the use of septic tanks or alternative waste water disposal system. No impact would occur.

Would the Project:	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 or unique geologic feature?	☐	☐	☒	☐

Less than Significant Impact.

No unique paleontological resource or site or unique geologic feature is anticipated to be directly or indirectly destroyed as a result of proposed ground disturbances. Ground disturbance activities proposed for this Project would extend four feet beneath the surface in previously disturbed soil. According to the paleontological records search conducted by the Western Science Center (2021) (Appendix E), excavation activity associated with the development of the Project is unlikely to be paleontologically sensitive. Impacts would be less than significant.

4.7.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.8 Greenhouse Gas Emissions

4.8.1 Environmental Setting

Greenhouse gas (GHG) emissions are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and chlorofluorocarbons, creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to an unexpected warming of the earth and has the potential to severely impact the earth's climate system.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps more than 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e). Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

The local air quality agency regulating the San Bernardino County portion of the SoCAB is the SCAQMD. To provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, SCAQMD staff convened a GHG CEQA Significance Threshold Working Group. The Working Group was formed to assist the SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Planning and Research, CARB, the Attorney General's Office, a variety of city and county planning departments in the Basin, various

utilities such as sanitation and power companies throughout the Basin, industry groups, and environmental and professional organizations. The GHG CEQA Significance Threshold Working Group recommended the options of a numeric "bright-line" threshold of 3,000 metric tons of CO_2e annually and an efficiency-based threshold of 3.0 metric tons of CO_2e per service population (defined as the people that congregate on the Project Site) per year in 2035. The numeric bright line and efficiency-based thresholds were developed to be consistent with CEQA requirements for developing significance thresholds, are supported by substantial evidence, and provide guidance to CEQA practitioners and lead agencies with regard to determining whether GHG emissions from a proposed project are significant.

In Center for Biological Diversity v. Department of Fish and Wildlife (2015) 62 Cal. 4th 2014, 213, 221, 227, following its review of various potential GHG thresholds proposed in an academic study [Crockett, Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World (July 2011), 4 Golden Gate U. Envtl. L. J. 203], the California Supreme Court identified the use of numeric bright-line thresholds as a potential pathway for compliance with CEQA GHG requirements. The study found numeric bright line thresholds designed to determine when small projects were so small as to not cause a cumulatively considerable impact on global climate change was consistent with CEQA. Specifically, PRC section 21003(f) provides it is a policy of the state that "[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." The Supreme Court-reviewed study noted, "[s]ubjecting the smallest projects to the full panoply of CEQA requirements, even though the public benefit would be minimal, would not be consistent with implementing the statute in the most efficient, expeditious manner. Nor would it be consistent with applying lead agencies' scarce resources toward mitigating actual significant climate change impacts." (Crockett, Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World (July 2011), 4 Golden Gate U. Envtl. L. J. 203, 221, 227.)

The significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The City of San Bernardino may set a project-specific threshold based on the context of each particular project, including using the SCAQMD Working Group expert recommendation. This standard is appropriate for this Project because it pertains to the same air quality basin that the experts analyzed. For the Proposed Project, the SCAQMD's 3,000 metric tons of CO_2e per year threshold is used as the significance threshold in addition to the qualitative thresholds of significance set forth below from Section VII of CEQA Guidelines Appendix H. The 3,000 metric tons of CO_2e per year threshold represents a 90 percent capture rate (i.e., this threshold captures projects that represent approximately 90 percent of GHG emissions from new sources). The 3,000 metric tons of CO_2e per year value is typically used in defining small projects within this air basin that are considered less than significant because it represents less than one percent of future 2050 statewide GHG emissions target and the lead agency can provide more efficient implementation of CEQA by focusing its scarce resources on the top 90 percent. This threshold is correlated to the 90 percent capture rate for development projects within the air basin. Land

use projects above the 3,000 metric tons of CO_2e per year level would fall within the percentage of largest projects that are worth mitigating without wasting scarce financial, governmental, physical and social resources (Crockett 2011). As noted in the academic study, the fact that small projects below a numeric bright line threshold are not subject to CEQA-based mitigation, does not mean such small projects do not help the state achieve its climate change goals because even small projects participate in or comply with non-CEQA-based GHG reduction programs (Crockett 2011).

4.8.2 Greenhouse Gas Emissions (VIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

Less than Significant Impact.

4.8.2.1 Construction GHG Emissions

A source of GHG emissions associated with the Proposed Project would be combustion of fossil fuels during construction activities. The construction phase of the Proposed Project is temporary but would result in GHG emissions from the use of heavy construction equipment and construction-related vehicle trips. The operational phase would also result in GHG emissions, predominately from vehicle trips to the Project Site.

Construction-related activities that would generate GHGs include worker commute trips, haul trucks carrying supplies and materials to and from the Project Site, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 4.8-1 illustrates the specific construction generated GHG emissions that would result from construction of the Project.

Table 4.8-1. Construction-Related Greenhouse Gas Emissions

Emissions Source	CO_2e (Metric Tons/Year)
Project Construction 2023	197
Project Construction 2024	44
Total	**241**
SCAQMD Threshold	*3,000*
Exceed Threshold?	**No**

Source: CalEEMod version 2020.4.0. Refer to Appendix H for Model Data Outputs.

As shown in Table 4.8-1, Project construction would result in the generation of approximately 241 metric tons of CO_2e over the course of construction. The generation of these GHG emissions would cease once construction is complete. Project GHG emissions are compared to SCAQMD's numeric bright-line threshold of 3,000 metric tons of CO_2e annually. Project construction would not generate GHG emissions in excess of the significance threshold of 3,000 metric tons of CO_2e per year. Construction generated GHG emissions would be less than significant.

4.8.2.2 Operational GHG Emissions

The Proposed Project would not include the provision of new permanent stationary or mobile sources of emissions, and therefore, by its very nature, would not generate quantifiable GHG emissions from Project operations. The Project does not propose any buildings and therefore no permanent source or stationary source emissions. Once the Project is completed, there will be no resultant increase in automobile trips, a source of GHG emissions. Thus, the Project would not exceed the SCAQMD's numeric bright-line threshold of 3,000 metric tons of CO_2e annually during operations. There is no impact.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

No Impact.

The City of San Bernardino does not have a Climate Action Plan. However, the State of California promulgates several mandates and goals to reduce statewide GHG emissions, including the goal to reduce statewide GHG emissions to 40 percent below 1990 levels by the year 2030 and 80 percent below 1990 levels by the year 2050 (Senate Bill [SB] 32). The Proposed Project is subject to compliance with SB 32. As discussed previously, the Proposed Project construction related GHG emissions would not surpass the SCAQMD GHG threshold of 3,000 metric tons of CO_2e, which were prepared with the purpose of complying with these requirements and would not be a source of operational emissions. As such, there is no impact, and no mitigation is required.

4.8.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.9 Hazards and Hazardous Materials

4.9.1 Environmental Setting

The Project Area is located in the northeastern portion of the hospital property. Patton State Hospital has been in the location since 1893. According to aerial photographs, the extreme northern portion of the

hospital property was used for agricultural purposes, to provide food and occupational therapy for hospital patients, from at least the 1930s to the 1970s (CDGS 2012).

EnviroStor shows now hazardous sites within a 2,500-foot radius of the Project Area (Department of Toxic Substances Control 2021). The GeoTracker database shows one Leaking Underground Storage Tank (LUST) cleanup site within a 1,500-foot radius of the Project Area (State Water Resources Board 2021). The LUST cleanup site was previously a Circle K Gas Station located at 3405 Highland Avenue, Highland, California 92346.

4.9.2 Hazards and Hazardous Materials (IX) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

Less than Significant Impact.

The Project would not utilize acutely hazardous materials (as defined in Title 22 Cal. Code Regs. §66260.10). Hazardous materials that may be utilized include diesel fuel, gasoline, oils, and solvents typically associated with standard construction vehicles and equipment. All materials would be routinely transported, used, and disposed of in accordance with any applicable laws, regulations, and protocols that protect the environment, the public, and workers. Compliance with all applicable laws and regulations would reduce the potential impact associated with the routine transport, use, storage, or disposal of hazardous materials to a less than significant level.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐

Less than Significant Impact.

As discussed under question a) above, construction of the Proposed Project may involve the routine use of small quantities of hazardous materials such as fuels, lubricants, and oil for equipment during construction. Although routine in nature, construction of the Project could result in the release of these materials into the environment due to potential upset or accident conditions involving the release of hazardous materials used in construction. Construction activities would be required to follow all applicable codes and regulations, including but not limited to the California Building and Fire Codes federal and California Occupational Safety and Health Administration (OSHA) regulations. With adherence

to applicable codes, regulations, impacts related to the release of hazardous materials would be less than significant.

Would the Project:	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?	☐	☐	☒	☐

Less than Significant Impact.

Bonnie Oehl Elementary School and Serrano Middle School are the closest schools to the Project Area, located approximately 0.25 miles east, and immediately adjacent to and north of the hospital, respectively. All materials would be routinely transported, used, and disposed of in accordance with any applicable laws, regulations, and protocols that protect the environment, the public, and workers. Therefore, the Project would have less than significant impacts on existing or proposed schools.

Would the Project:	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?	☐	☐	☒	☐

Less than Significant Impact.

Government Code Section 65962.5 (also referred to as the "Cortese List") requires the specific hazardous materials sites to be reported to the DTSC, SWRCB, and the California Integrated Waste Management Board, whose responsibility it is to compile and maintain the records. According to the Department of Toxic Substances Control's (DTSC) EnviroStor database, there are no hazardous sites within a 2,000-foot radius of the Project Area (DTSC 2021). According to the State Water Resources Control Board's (SWRCB) GeoTracker database, there is one Leaking Underground Storage Tank (LUST) site within a 2,000-foot radius of the Project Area. This LUST site has since been remediated and closed and the known soil contamination associated with the site does not represent a significant health hazard (SWQCB 2000). The LUST site (Circle K Gas Station) is approximately 960 feet to the southeast of the intersection of East Highland Avenue and Orange Street. This site has been remediated to the extent that the trenching planned as part of the Proposed Project would not encounter any soil that was potentially contaminated by the closed LUST site. There is no groundwater contamination known as a result of the presence of the closed LUST site (SWQCB 2000).

As the sites has been remediated and is closed with no further action required, construction and operation of the Proposed Project would not generate a significant hazard to the environment. The impact would be considered less than significant with no mitigation required.

Would the Project:	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 for people residing or working in the project area?	☐	☐	☐	☒

No Impact.

The Project Area is not located within an airport land use plan or within two miles of a public airport or public use airport and would not result in a safety hazard for people residing or working in the Project Area. The nearest airport, which is the San Bernardino International Airport, is approximately three miles south of the Project Area (City of San Bernardino 2005). No impact would occur.

Would the Project:	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?	☐	☐	☐	☒

No Impact.

The City of San Bernardino Emergency Operations Plans (EOP) guides local preparedness, response, recovery, and resource management efforts associated with the occurrence of a natural disaster, significant emergency, or other threat to public safety (City of San Bernardino 2016). According to the City of San Bernardino EOP, no emergency response or evacuation plans have been adopted for the roads within the Project Area (City of San Bernardino 2016). The Proposed Project would not block streets or other egress points and would not interfere with emergency response or evacuation. No impact would occur.

Would the Project:	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?	☐	☐	☒	☐

Less than Significant Impact.

The Proposed Project is located adjacent to a CAL FIRE Very High Fire Hazard Severity Zone (VHFSZ) Fire Hazard Area C-Moderate Hazard and in a High Wind Hazard Area as designated by the City of San Bernardino (City of San Bernardino 2005). The Proposed Project is surrounded by urban development and would not further increase the risk of loss, injury, or death involving wildland fires. Impacts would be less than significant.

4.9.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.10 Hydrology and Water Quality

4.10.1 Environmental Setting

4.10.1.1 Regional Hydrology

Patton State Hospital is located in the Upper Santa Ana River Watershed. The Upper Santa Ana River Watershed includes the upper reaches of the Santa Ana River and its tributaries. Patton State Hospital is located within Reach 5 of the Santa Ana River, which extends from the San Jacinto fault in San Bernardino northeast to the Seven Oaks Dam in the foothills of the San Bernardino Mountains. Most of this reach of the river is maintained as a flood control facility and is dry, except during storm flows. The closest portion of the river to the Project Area is located directly west of Victoria Avenue, approximately 500 feet from the western hospital boundary (CDGS 2002).

4.10.1.2 Site Hydrology and On-Site Drainage

Patton State Hospital's on-site drainage runoff is currently discharged onto one of the many streets within the campus. The runoff is then discharged directly onto either Victoria Avenue or Highland Avenue with the exception of two small drainage inlets on the Main Entrance driveway. Potable water is supplied by on-site wells (CDGS 2002). The site is not located in a 100-year floodplain or the historic high groundwater level.

4.10.2 Hydrology and Water Quality (X) Environmental Checklist and Discussion

Would the Project:	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?	☐	☐	☒	☐

Less than Significant Impact.

Potential water quality impacts associated with construction of the Project would be limited to short-term erosion/sedimentation that could occur during construction of the water pipeline. The Proposed Project would include the use standard construction BMPs, which would reduce potential water quality impacts during construction to a less than significant level.

Would the Project:	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?	☐	☐	☐	☒

No Impact.

The Project would not involve changes to groundwater supplies. No groundwater removal is proposed, and the amount of impervious surface would not change following Project implementation. No impact would occur.

Would the Project:	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 that would:				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒

Would the Project:	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; or	☐	☐	☐	☒
iv) impede or redirect flood flows?	☐	☐	☐	☒

i) Less than Significant Impact. As noted above, temporary ground-disturbing activities have the potential to result in erosion and siltation that may indirectly impact water quality in off-site waterways. Following completion of the ground-disturbance, the trench will be filled and no long-term impacts due to erosion and siltation would occur as a result of the Project. The Proposed Project would include the use standard construction BMPs, which would reduce potential erosional impacts during construction to a less than significant level.

ii) No Impact. The Project would result in temporary ground disturbance but no alterations to the local topography or changes in total impervious surfaces are proposed. There would be no alteration to the existing drainage pattern of the Project Site, including the course of a stream or river. Moreover, there would also be no substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on or off site. No impact would occur.

iii) No Impact. The Project would result in only temporary ground-disturbing activities. No long-term physical changes to the environment are proposed; therefore, there would be no creation or contribution to runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. No impact would occur.

iv) No Impact. The Project is not located within a Federal Emergency Management Agency (FEMA) flood zone (FEMA 2008). The Project does not propose any alterations that would alter floodwaters; therefore, there would be no impediments or redirection of flood flows as a result of the Project. No impact would occur.

Would the Project:	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?	☐	☐	☐	☒

No Impact.

The Project Site is located almost 75 miles from the California coast in the City of San Bernardino, therefore, there is no risk of tsunami, which is a coastal hazard. A seiche could occur if an enclosed water body of sufficient size were present. However, there are no such water bodies in reasonable proximity to

the Project Site. Thus, no inundation associated with these hazards would not occur and there would be no impact pertaining to tsunami or seiche.

The Project Site is not located in a regulatory floodway or in an area subject to seiche or tsunami; therefore, the risk for release of pollutants based on these hazards is remote. No impact would occur.

Would the Project:	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?	☐	☐	☐	☒

No Impact.

The Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin lists water quality goals and policies, descriptions of conditions, and discussions of solutions as well as establishes water quality standards for the ground and surface waters of the region (State of California Santa Ana Regional Water Quality Control Board 1995). Based on the distance from the Santa Ana River, the temporary nature of the impacts, and with the implementation of construction BMPs, the Project would not obstruct the implementation of the Basin Plan. Additionally, the Project would have no effect on groundwater and would in no way conflict with or obstruct any sustainable groundwater management plan. No impact would occur.

4.10.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.11 Land Use and Planning

4.11.1 Environmental Setting

The Proposed Project is located at Patton State Hospital in the City of San Bernardino within the community of Patton in San Bernardino County, California. All components of the Proposed Project would occur within the hospital property, which is surrounded by residential, commercial, and public land uses. Surrounding land uses are discussed in detail in Section 1.3, Surrounding Land Uses and Environmental Setting.

4.11.2 Land Use and Planning (XI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒

No Impact.

The Proposed Project would be located entirely within the Patton State Hospital property which is currently surrounded by residential, commercial, and public land uses. The subject property is located in an established community that was developed around the hospital beginning in the 1890s. The Proposed Project would not physically divide an established community. No impacts would occur.

Would the Project:	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?	☐	☐	☐	☒

No Impact.

The City of San Bernardino General Plan (2005) designated the Project Site as a Public Facility on their Land Use Map. The Project Site is zoned PF - Public Facility on the City of San Bernardino Zoning Map (2021). Intended uses within the Public Facility zone include public facilities, governmental institutions, transportation facilities, public schools (K-12), public or private colleges and universities, museums, and public libraries. Because the Project involves the replacement of an existing water line, no aspect of the Project would conflict with the General Plan's land use and zoning designations. No impact would occur.

4.11.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.12 Mineral Resources

4.12.1 Environmental Setting

The Proposed Project is not located in an area where mineral resources are known to exist (City of San Bernardino 2005).

4.12.2 Mineral Resources (XII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

No known mineral resources are present on the Project Site (City of San Bernardino 2005). No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

No Impact.

The Project area is not located within a locally-important mineral resource recovery site (City of San Bernardino 2005). No impact would occur.

4.12.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.13 Noise

4.13.1 Noise Fundamentals

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in L_{dn}/CNEL). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

Equivalent Noise Level (L_{eq}) is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

Day-Night Average (L_{dn}) is a 24-hour average L_{eq} with a 10-dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.

Community Noise Equivalent Level (CNEL) is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 p.m. to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations.

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2011). Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed (FHWA 2011).

The manner in which older structures in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). The exterior-to-interior reduction of newer structures is generally 30 dBA or more (Harris Miller Miller & Hanson Inc. [HMMH] 2006).

4.13.2 Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60- to 70-dBA range, and high, above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA, the following relationships should be noted in understanding this analysis:

Except in carefully controlled laboratory experiments, a change of 1.0 dBA cannot be perceived by humans.

Outside of the laboratory, a 3.0-dBA change is considered a just-perceivable difference.

A change in level of at least 5.0 dBA is required before any noticeable change in community response would be expected. An increase of 5.0 dBA is typically considered substantial.

A 10.0-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

4.13.3 Noise Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as hospitals, historic sites, cemeteries, and certain recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The nearest sensitive land uses to the Project Site are residences located to the north, directly adjacent to the solar field and the existing concrete slab that accommodates the reduced pressure double detector check and CLA_VAL pressure reducing valve assemblies as well as residences located across Orange Street.

4.13.4 Vibration Fundamentals

Ground vibration can be measured several ways to quantify the amplitude of vibration produced, including through peak particle velocity (PPV) or root mean square velocity. These velocity measurements measure maximum particle at one point or the average of the squared amplitude of the signal, respectively.

Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

4.13.5 Existing Ambient Noise Environment

The City of San Bernardino is impacted by various noise sources. It is subject to typical urban noise such as noise generated by traffic, heavy machinery, and day-to-day outdoor activities as well as noise generated from the various land uses (i.e., residential, commercial, institutional, and recreational and parks activities) throughout the City that generate stationary source noise. Mobile sources of noise, especially cars and trucks, are the most common and continuous source of noise in the City.

The Project Site is located on the Patton State Hospital property. The replacement waterline would be constructed in the northeast one-third of the hospital's property surrounding a portion of the existing solar field. The Project Site is surrounded by the existing solar field and residences beyond to the north, Orange Street and residences beyond to the east, and Patton State Hospital property to the south and west. The American National Standards Institute (ANSI) Standard 12.9-2013/Part 3 "Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-Term Measurements with an Observer Present" provides a table of approximate background sound levels in L_{dn}, daytime L_{eq}, and nighttime L_{eq}, based on land use and population density. The ANSI standard estimation divides land uses into six distinct categories. Descriptions of these land use categories, along with the typical daytime and nighttime levels, are provided in Table 4.13-1. At times, one could reasonably expect the occurrence of periods that are both louder and quieter than the levels listed in the table. ANSI notes,

"95% prediction interval [confidence interval] is on the order of +/- 10 dB." The noise levels experienced with the Project Site would be considered ambient noise Category 3 or 4.

Table 4.13-1. ANSI Standard 12.9-2013/Part 3 A-weighted Sound Levels Corresponding to Land Use and Population Density

Category	Land Use	Description	People per Square Mile	Typical L_{dn}	Daytime L_{eq}	Nighttime L_{eq}
1	Noisy Commercial & Industrial Areas and Very Noisy Residential Areas	Very heavy traffic conditions, such as in busy, downtown commercial areas; at intersections for mass transportation or for other vehicles, including elevated trains, heavy motor trucks, and other heavy traffic; and at street corners where many motor buses and heavy trucks accelerate.	63,840	67 dBA	66 dBA	58 dBA
2	Moderate Commercial & Industrial Areas and Noise Residential Areas	Heavy traffic areas with conditions similar to Category 1, but with somewhat less traffic; routes of relatively heavy or fast automobile traffic, but where heavy truck traffic is not extremely dense.	20,000	62 dBA	61 dBA	54 dBA
3	Quiet Commercial, Industrial Areas and Normal Urban & Noisy Suburban Residential Areas	Light traffic conditions where no mass transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at moderate speeds; residential areas and commercial streets, and intersections, with little traffic compose this category.	6,384	57 dBA	55 dBA	49 dBA
4	Quiet Urban & Normal Suburban Residential Areas	These areas are similar to Category 3, but for this group, the background is either distant traffic or is unidentifiable; typically, the population density is one-third the density of Category 3.	2,000	52 dBA	50 dBA	44 dBA

Table 4.13-1. ANSI Standard 12.9-2013/Part 3 A-weighted Sound Levels Corresponding to Land Use and Population Density

Category	Land Use	Description	People per Square Mile	Typical L_{dn}	Daytime L_{eq}	Nighttime L_{eq}
5	Quiet Residential Areas	These areas are isolated, far from significant sources of sound, and may be situated in shielded areas, such as a small wooded valley.	638	47 dBA	45 dBA	39 dBA
6	Very Quiet Sparse Suburban or rural Residential Areas	These areas are similar to Category 4 but are usually in sparse suburban or rural areas; and, for this group, there are few if any nearby sources of sound.	200	42 dBA	40 dBA	34 dBA

Source: The American National Standards Institute (ANSI) 2013

4.13.6 Noise (XIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in 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?	☐	☐	☒	☐

Less than Significant Impact.

Construction noise associated with the Proposed Project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., demolition, site preparation, grading, paving). Noise generated by construction equipment, including excavators, material handlers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). Construction noise levels could negatively affect sensitive land uses in the vicinity of the construction site. During

construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site.

The City of San Bernardino regulations to noise are presented in Section 8.54.070, *Disturbance from Construction Activity,* in the City's Municipal Code. Section 8.54.070 prohibits any construction, erection, alteration, repair, addition, movement, demolition, or improvement between the hours of 8:00 p.m. and 7:00 a.m. The City does not promulgate a numeric threshold pertaining to the noise associated with construction. This is due to the fact that construction noise is temporary, short term, intermittent in nature, and would cease on completion of the Project. Additionally, construction would occur throughout the Project Site and would not be concentrated at one point. Furthermore, Policy 14.3.1 of the General Plan requires that all construction activities adjacent to residential units be limited as necessary to prevent adverse noise impacts and Policy 14.3.2 requires that construction activities employ feasible and practical techniques that minimize the noise impacts on adjacent uses.

To estimate the worst-case onsite construction noise levels that may occur at the nearest noise-sensitive receptor in the Project vicinity and in order to evaluate the potential health-related effects (physical damage to the ear) from construction noise, the construction equipment noise levels were calculated using the Roadway Noise Construction Model for the construction process and compared against the construction-related noise level threshold established in the *Criteria for a Recommended Standard: Occupational Noise Exposure* prepared in 1998 by National Institute for Occupational Safety and Health (NIOSH). A division of the US Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than eight hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than four hours per day, 92 dBA for more than one hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. For the purposes of this analysis, the lowest, more conservative threshold of 85 dBA L_{eq} is used as an acceptable threshold for construction noise at the nearby existing and future planned sensitive receptors.

Nearby noise-sensitive land uses consist of residences located directly adjacent to the northern Project Site boundary. However, it is acknowledged that the majority of construction equipment is not situated at any one location during construction activities, but rather spread throughout the Project Site and at various distances from sensitive receptors. Therefore, this analysis employs Federal Transit Administration (FTA) guidance for calculating construction noise, which recommends measuring construction noise produced by all construction equipment operating simultaneously from the center of the Project Site (FTA 2018), which in this case is approximately 400 feet from the nearest sensitive receptor. The anticipated short-term construction noise levels generated from Project construction equipment are presented in Table 4.13-2.

Table 4.13-2. Construction Average (dBA) Noise Levels at Nearest Receptor- Project Site			
Equipment	**Estimated Exterior Construction Noise Level @ Closest Noise Sensitive Receptor**	**Construction Noise Standard (dBA L_{eq})**	**Exceeds Standards?**
Site Preparation			
Graders (1)	63.0	*85*	No
Tractors/Loaders/Backhoes (1)	62.0	*85*	No
Combined Site Preparation Equipment	65.5	*85*	No
Excavation & Trenching			
Trenchers (1)	58.7	*85*	No
Excavators (1)	58.7	*85*	No
Graders (1)	63.0	*85*	No
Rubber Tired Dozers (1)	59.6	*85*	No
Tractors/Loaders/Backhoes (2)	62.0 (each)	*85*	No
Combined Excavation & Trenching Equipment	68.8	*85*	No
Pipe Fittings & Instillation			
Cranes (1)	54.5	*85*	No
Forklifts (2)	61.4 (each)	*85*	No
Tractors/Loaders/Backhoes (2)	62.0 (each)	*85*	No
Combined Pipe Fittings & Instillation Equipment	67.9	*85*	No
Backfill & Paving			
Cement and Mortar Mixers (2)	56.8 (each)		
Pavers (1)	56.1	*85*	No

Table 4.13-2. Construction Average (dBA) Noise Levels at Nearest Receptor- Project Site			
Equipment	**Estimated Exterior Construction Noise Level @ Closest Noise Sensitive Receptor**	**Construction Noise Standard (dBA L_{eq})**	**Exceeds Standards?**
Rollers (1)	54.9	*85*	No
Dumpers/Tenders (1)	54.4	*85*	No
Tractors/Loaders/Backhoes (1)	62.0	*85*	No
Combined Backfill & Paving Equipment	65.5	*85*	No

Source: Construction noise levels were calculated by ECORP Consulting using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Appendix I for Model Data Outputs.

Notes: Construction equipment used during construction derived from CalEEMod 2020.4.0. CalEEMod is designed to calculate air pollutant emissions from construction activity and contains default construction equipment and usage parameters for typical construction projects based on several construction surveys conducted in order to identify such parameters. Consistent with FTA recommendations for calculating construction noise, construction noise was measured from the center of the Project Site (FTA 2018), which is 400 feet from the nearest residence.

L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

As shown in Table 4.13-2, during construction activities no individual or cumulative piece of construction equipment would exceed the NIOSHA threshold of 85 dBA L_{eq} at the adjacent sensitive receptors. A less than significant impact would occur, and no mitigation is necessary.

4.13.6.1 Construction Traffic Noise

Project construction would result in minimal additional traffic on adjacent roadways over the time period that construction occurs. According to the Project applicant there are anticipated to be four to eight crew members per construction phase. According to the Caltrans *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (2013), doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference). The Project Site is accessible from Highland Avenue, a major arterial roadway within the City. Major arterial roadways accommodate six to eight travel lanes and carry high traffic volumes through the City. Additionally, as previously stated, the Project Site is located on the Patton State Hospital property which employs 2,380 employees. As such, Project construction would not result in a doubling of traffic, and therefore its contribution to existing traffic noise would not be perceptible. A less than significant impact would occur as a result of construction traffic noise.

4.13.6.2 Project Operations

The Project is proposing the construction of a replacement waterline at the Patton State Hospital. It would not be a substantial source of mobile noise sources or a source of stationary noise. The Project would have no impact due to operational noise generation and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

Less than Significant Impact.

4.13.6.3 Construction-Generated Vibration

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the Project would be primarily associated with short-term construction-related activities. Construction on the Project Site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. It is noted that pile drivers would not be necessary during Project construction. Vibration decreases rapidly with distance and it is acknowledged that construction activities would occur throughout the Project Site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment are summarized in Table 4.13-3.

Table 4.13-3. Representative Vibration Source Levels for Construction Equipment

Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Hoe Ram	0.089
Jackhammer	0.035

Table 4.13-3. Representative Vibration Source Levels for Construction Equipment

Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Small Bulldozer/Tractor	0.003
Vibratory Roller	0.210

Source: Federal Transit Administration (FTA) 2018; Caltrans 2020

The City of San Bernardino does not regulate vibrations associated with construction. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, the Caltrans (2020) recommended standard of 0.2 inch per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings. Consistent with Federal Transit Administration (FTA) recommendations for calculating construction vibration, construction vibration was measured from the center of the Project Site (FTA 2018). The nearest structures of concern to the construction site are residences located directly adjacent, at a distance of approximately 400 feet from the center of the Project Site. Based on the representative vibration levels presented for various construction equipment types in Table 4.13-3 and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential Project construction vibration levels. The FTA provides the following equation:

$$[PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}]$$

Table 4.13-4 presents the expected Project related vibration levels at a distance of 400 feet.

Table 4.13-4. Construction Vibration Levels at 400 Feet

Receiver PPV Levels (in/sec)[1]					Peak Vibration	Threshold	Exceed Threshold
Small Bulldozer	Jackhammer	Loaded Trucks	Large Bulldozer/ Caisson Drilling/Hoe Ram	Vibratory Roller			
0.00004	0.00054	0.00118	0.00138	0.00327	0.00327	*0.2*	No

Notes: [1]Based on the Vibration Source Levels of Construction Equipment included on Table 4.13-2 (FTA 2018). Distance to the nearest structure is approximately 400 feet measured from the center of the Project Site.

As shown in Table 4.13-4, vibration as a result of construction activities would not exceed 0.2 PPV at the nearest structure. Thus, Project construction would not exceed the recommended threshold. This impact is less than significant.

4.13.6.4 Operational-Generated Vibration

Project operations would not include the use of any large-scale stationary equipment that would result in excessive vibration levels. Therefore, the Project would not result in ground borne vibration impacts during operations. For this reason, no impact would occur, and no mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

No Impact.

The Project Site is not located within the vicinity of a private airstrip. The nearest public airport to the Project Site is the San Bernardino International Airport, located approximately 3.5 miles southwest of the center of the Project Site. According to the San Bernardino International Airport Authority, the Project Site is located outside of the 65 dBA CNEL airport noise contours. Therefore, implementation of the Proposed Project would not expose people working on the Project to excessive noise levels. Thus, no impact would occur with implementation of the Proposed Project.

4.13.7 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.14 Population and Housing

4.14.1 Environmental Setting

As of 2019, the City of San Bernardino had a population of 215,784 (US Census Bureau 2019). The Project Site is surrounded by residential development on all sides as well as some commercial development and public land. Residential units for patients are located within secure areas of the hospital facility. Housing for hospital staff is also located at the hospital facility.

4.14.2 Population and Housing (XIV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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)?	☐	☐	☐	☒

No Impact.

The Proposed Project would not directly or indirectly induce population growth. There would be no increase in employees or patients as a result of the installation of the water line replacement. The replacement of the water line would be within the hospital boundaries and would not induce population growth. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

No Impact.

The Proposed Project would be constructed within the hospital property. No displacement of existing housing units would result. No impact would occur.

4.14.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.15 Public Services

4.15.1 Environmental Setting

The Proposed Project is located within an urbanized area equipped with adequate public services. The Proposed Project would serve an existing hospital facility and would not increase population necessitating the construction of new or improved governmental facilities.

4.15.1.1 Police Services

The Department of State Hospitals' (DSH) police officers provide safety, service, and security to patients, employees and the public in and around each State hospital, including Patton State Hospital (DHS 2021). The unincorporated portions of the City of San Bernardino, including Patton, are provided police services

from the San Bernardino County Sheriff's Department (City of San Bernardino 2005). The Sheriff's Department and the City of San Bernardino Police Department provide mutual backup services upon request within both the City and unincorporated areas (City of San Bernardino 2005).

4.15.1.2 Fire Services

The City of San Bernardino Fire Department serves the City of San Bernardino, including Patton State Hospital. The closest fire station is located adjacent to the southeast corner of the hospital, at the corner of Highland Avenue and Orange Street.

4.15.1.3 Schools

School services are provided by the San Bernardino City Unified School District. There are three schools located near the Project Site, Bonnie Oehl Elementary School, Serrano Middle School, and Entrepreneur High School.

4.15.1.4 Parks

The City of San Bernardino provides park services in the Project Area. Speicher Memorial Park and the San Bernardino Soccer Complex are located southwest of the hospital. The SBNF is located north and northeast of the hospital.

4.15.1.5 Other Public Facilities

No other notable public facilities exist within the vicinity of the Project Area.

4.15.2 Public Services (XV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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:	☐	☐	☐	☒
Fire Protection?	☐	☐	☐	☒
Police Protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Other Public Facilities?	☐	☐	☐	☒

No Impact.

The Proposed Project consists of the replacement of an existing water line. The Proposed Project would not create a substantial new fire or public safety hazard. The Proposed Project would not generate new employees; therefore, there would be no additional demand for schools, parks, or other public facilities. The Project would not result in the need for new or physically altered government facilities nor affect response time or other performance objectives. No impact would occur.

4.15.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.16 Recreation

4.16.1 Environmental Setting

The City of San Bernardino provides park services in the Project Area. Speicher Memorial Park and the San Bernardino Soccer Complex are located southwest of the hospital. The SBNF is located north and northeast of the hospital.

4.16.2 Recreation (XVI) Materials Checklist

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒

No Impact.

The Proposed Project consists of the replacement of an existing water line. Population would not increase as a result of the Project; therefore, there would be no increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

No Impact.

The Proposed Project consists of the replacement of an existing water line. No changes to existing recreational facilities would occur and no new recreational facilities would be constructed. No impact would occur.

4.16.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.17 Transportation

4.17.1 Environmental Setting

Patton State Hospital is located between Victoria Avenue, Orange Street, and East Highland Avenue in the City of San Bernardino. Freeway access to the site is provided by State Route (SR) 210 (formerly SR-30) with exits at Highland Avenue and Baseline Street. Local street access in the north-south direction is provided by Victoria Avenue, Orange Street, and Palm Avenue. Local access in the east-west direction is provided by Highland Avenue and Pacific Avenue.

Access to Patton State Hospital is located at Highland Avenue and Victoria Avenue. The main entrance on Highland Avenue to Patton Avenue is signalized, signed as the main entrance, and is open 24 hours per day. The secondary entrance is from Victoria Avenue to Date Street and is open from 6:00 a.m. to 6:00 p.m. This entrance has a stop sign at Date Street and is the designated truck access for the facility.

4.17.2 Transportation (XVII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐

Less than Significant Impact.

During construction, workers would access the work site on a daily basis from North Victoria Avenue via Date Street. Construction-related traffic would be temporary and would not result in any long-term

degradation in operating conditions on any locally used roadways. The Proposed Project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Impacts would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐

Less than Significant Impact.

According to CEQA Guidelines Section 15064.3 subdivision (b), vehicle miles traveled (VMT) exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects that would decrease or cause no change in VMT compared to existing conditions should be considered to have a less than significant transportation impact. Construction of the Project would include the temporary travel of construction worker vehicles traveling to and from the Project Site. The Project would not generate new permanent traffic on the local or regional road network as there are no permanent on-site employees associated with water main operations. No change in vehicle miles traveled is anticipated as a result of the project. A less than significant impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒

No Impact.

The Proposed Project is limited to construction activities required to replace an underground pipeline. No change to current roadway design would result from the Project. The project would have no impact to hazards due to a design feature or incompatible uses. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in inadequate emergency access?	☐	☐	☐	☒

No Impact.

The Proposed Project would not prohibit emergency access to Patton State Hospital. No impact would occur.

4.17.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.18 Tribal Cultural Resources

4.18.1 Environmental Setting

The Project Site is located in the foothills of the San Bernardino Mountains, approximately 0.6 miles west of Sand Creek, and is surrounded by commercial and residential developments. Elevations at the Project Site range from 1,392 to 1,439 feet above sea level.

4.18.2 Ethnography

The Project Site is located within the territory known to have been occupied by the Serrano group of Native Americans at the time of contact with Europeans, around 1769 (ECORP 2021b). The Serrano occupied an area in and around the San Bernardino Mountains and northward into the Mojave Desert. Their territory also extended west along the north slope of the San Gabriel Mountains, east as far as Twentynine Palms, north into the Victorville and Lucerne Valley areas, and south to the Yucaipa Valley and San Jacinto Valley (ECORP 2021b). The Serrano speakers in the Mojave Desert who lived along the Mojave River were known as Vanyume. Serrano is a language within the Takic family of the Uto-Aztecan language stock.

The Serrano were mainly hunters and gatherers who occasionally fished. Game hunted included mountain sheep, deer, antelope, rabbits, small rodents, and various birds, particularly quail. Vegetable staples consisted of acorns, pinyon nuts, bulbs and tubers, shoots and roots, juniper berries, mesquite, barrel cacti, and Joshua tree (ECORP 2021b).

A variety of materials were used for hunting, gathering, and processing food, as well as for shelter, clothing, and luxury items. Shells, wood, bone, stone, plant materials, and animal skins and feathers were used for making baskets, pottery, blankets, mats, nets, bags and pouches, cordage, awls, bows, arrows, drills, stone pipes, musical instruments, and clothing (ECORP 2021b).

Settlement locations were determined by water availability, and most Serranos lived in villages near water sources. Houses and ramadas were round and constructed of poles covered with bark and tule mats (ECORP 2021b). Most Serrano villages also had a ceremonial house used as a religious center. Other structures within the village might include granaries and sweathouses (ECORP 2021b).

Serrano social and political units were clans, patrilineal exogamous territorial groups. Each clan was led by a chief who had both political and ceremonial roles. The chief lived in a principal village within the clan's territory. The clans were part of a moiety system such that each clan was either a wildcat or coyote clan and marriages could only occur between members of opposite moieties. On the north side of the San Bernardino Mountains, clan villages were located along the desert-mountain interface on Deep Creek, on

the upper Mojave River, in Summit Valley, and in Cajon Pass. The principal plant food available near these villages was juniper berries. These villages also had access to mountain resources, such as acorns and pinyon nuts.

Partly due to their mountainous and desert inland territory, contact between Serrano and European-Americans was minimal prior to the early 1800s. In 1819, an asistencia (mission outpost) was established near present-day Redlands and was used to help relocate many Serrano to Mission San Gabriel. However, small groups of Serrano remained in the area northeast of the San Gorgonio Pass and were able to preserve some of their native culture. Today, most Serrano live either on the Morongo or San Manuel reservations (ECORP 2021b).

4.18.3 Tribal Consultation

AB 52 requires that prior to the release of a CEQA document for a project, an agency begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the Proposed Project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation. DSH, as the lead agency, sent consultation requests to those tribes that requested consultation pursuant to AB 52. Those tribes are listed in Section 2.3.

4.18.4 Tribal Cultural Resources (XVIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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:				
i) 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	☐	☒	☐	☐

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	☐	☒	☐	☐

i) and ii) Less than Significant with Mitigation Incorporated.

AB 52 specifies that CEQA projects with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource may have a significant effect on the environment. As such, the bill requires lead agency consultation with California Native American tribes traditionally and culturally affiliated with the geographic area of a proposed project, if the tribe requested to the lead agency, in writing, to be informed of proposed projects in that geographic area.

On November 18, 2021, in accordance with AB 52, DSH contacted representatives of the following tribes: San Manuel Band of Mission Indians and the San Gabriel Band of Mission Indians. DSH received one response from the San Manuel Band of Mission Indians requesting consultation on the Project.

In an email dated December 20, 2021, the San Manuel Band of Mission Indians confirmed that the Proposed Project is located within Serrano ancestral territory. Therefore, the San Manuel Band of Mission Indians has requested to receive consulting party status with the lead agency.

As conveyed in the Cultural Resources Inventory, there are no known cultural or tribal resources that have been identified within the Project Site. However, based on AB 52 tribal consultation, the San Manuel Band of Mission Indians requested mitigation measures to be included in the Project. Mitigation Measure **TCR-1**, **TCR-2**, and **TCR-3** are included to reduce potential impacts to potential Native American resources.

If any previously unrecorded cultural materials are identified during ground-disturbing construction activities and are found to qualify as a tribal cultural resource pursuant to PRC Section 21074(a)(1) (determined to be eligible for listing in the California Register or in a local register of historical resources), any impacts to the resource resulting from the Proposed Project could be potentially significant. Any such potential significant impacts would be reduced to a less-than-significant level by implementing **CUL-1**, **TCR-1**, **TCR-2**, and **TCR-3**. These mitigation measures would ensure that the San Manuel Band of Mission Indians is consulted throughout the Project and that work halt in the vicinity of a find until a qualified archaeologist can make an assessment and provide additional recommendations if necessary, including contacting Native American tribes.

4.18.5 Mitigation Measures

TCR-1: **Cultural Awareness and Sensitivity Training.** The San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted at least five (5) business days prior to project implementation and be notified of project start date, schedule, and projected end date. SMBMI shall be provided the opportunity to conduct a Cultural Awareness and Sensitivity Training (CAST) prior to project implementation for all personnel who will be working on the project site. SMBMI's cultural monitor(s) will also be provided access to the project site during the duration of implementation in order to provide cultural monitoring of the project, if elected by SMBMI and to the extent decided upon by SMBMI (i.e., full-time, part-time, spot-checking, etc.). Any documentation created by SMBMI as a result of monitoring efforts will be provided to the project proponent for their files.

TCR-2: **Inadvertent Cultural Resource Discovery.** The San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed in CR-1, of any pre-contact and/or post-contact (i.e., historic) cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a cultural resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with SMBMI, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents SMBMI for the remainder of the project, should SMBMI elect to place a monitor on-site.

TCR-3: **Consultation with San Manual Band of Mission Indians.** Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to SMBMI. The Lead Agency and/or applicant shall, in good faith, consult with SMBMI throughout the life of the project.

4.19 Utilities and Service Systems

4.19.1 Environmental Setting

4.19.1.1 Water Service

Patton State Hospital produces its own water from three onsite wells. The estimated capacity is more than adequate to meet the current water demand at the hospital. As a backup, the hospital's water system has a tie-in to an East Valley Water District water line (CDGS 2002).

4.19.1.2 Wastewater

The San Bernardino Municipal Water Department currently provides wastewater service to Patton State Hospital (San Bernardino Municipal Water Department 2021).

4.19.1.3 Solid Waste

Solid waste disposal is provided by the City of San Bernardino through regular trash pickup. Solid waste is taken to the County of San Bernardino-operated San Timoteo Landfill.

4.19.2 Utilities and Service Systems (XIX) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

Less than Significant Impact.

No wastewater treatment, natural gas, electrical, or telecommunication facilities are proposed as part of the Proposed Project, nor would the Proposed Project require the construction or expansion of such facilities. The Proposed Project includes the construction and operation of a new 16-inch diameter, 165-foot water pipeline. The construction and operation of the Proposed Project is not anticipated to result in significant environmental effects with respect to this criterion. Impacts would be less than significant.

Would the Project:	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?	☐	☐	☐	☒

No Impact.

The Proposed Project would involve the abandonment of an existing water pipeline and the installation of a replacement water pipeline to serve the hospital facility and improve the facility's water pressure. The Proposed Project would not require water resources during construction other than for dust suppression, as needed. The Project would have no effect on water supplies other than to increase reliability of the current system. No impact would occur.

Would the Project:	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?	☐	☐	☐	☒

No Impact.

The Proposed Project would not result in the generation of wastewater. No impact would occur.

Would the Project:	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, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐

Less than Significant Impact.

Construction of the Project is not anticipated to generate a significant amount of solid waste. To the extent possible, excavated soil would be reused on-site. The construction contractor(s) would be required to dispose of excavated soil and solid wastes in accordance with local solid waste disposal requirements. The landfill that would likely be used to dispose of Project solid waste is San Timoteo Landfill. All material would be sorted and disposed of according to local, state, and federal requirements. The California Green Building Standards Code (Title 24, Part 11) requires that new building construction divert 50 percent of construction waste from landfills. Upon completion of the Project, no additional solid waste would be generated. Impacts would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

No Impact.

As described above, the Project contractor(s) would dispose of waste generated during construction (which would consist primarily of spoils from soil trench excavation) consistent with applicable federal, state, and local recycling, reduction, and waste requirements and polices. Following construction, the

proposed Project would not generate solid waste. Therefore, the Proposed Project would not result in any impacts related to conflicts with statutes and regulations regarding solid waste. No impact would occur.

4.19.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.20 Wildfire

4.20.1 Environmental Setting

The City of San Bernardino is susceptible to wildland fires due to the steep terrain and highly flammable chaparral vegetation of the foothills of the San Bernardino Mountains and high winds that correspond with seasonal dry periods (City of San Bernardino 2005).

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped areas of significant fire hazards throughout the State based on fuels, terrain, weather, and other relevant factors. These zones are referred to as Fire Hazard Severity Zones (FHSZ). CAL FIRE delineates FHSZ into three hazard ranges: Moderate, High, and Very High. CAL FIRE maintains FHSZ maps for lands in State Responsibility Areas (SRAs) and Local Responsibility Areas (LRAs). The Project Site is within the boundaries of the LRA. The Project Site is not located within a moderate, high, or very high fire hazard severity zone. However, the nearest Very High FHSZ is adjacent to the hospital's northern property line.

4.20.2 Wildfire (XX) Environmental Checklist and Discussion

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Less than Significant Impact.

The City of San Bernardino Emergency Operations Plan (City of San Bernardino 2015) and the City of San Bernardino Hazard Mitigation Plan (City of San Bernardino 2016) provide specific emergency management plans for the vicinity of the Project. The Project would include the replacement of a water pipeline within Patton State Hospital property. Project activities are not expected to impede traffic flow and residents around the Project Area would be able to evacuate in the event of an emergency. Through compliance with regulatory safety measures, the Project would have a less than significant impact on any emergency response plans or emergency evacuation plans.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	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?	☐	☐	☐	☒

No Impact.

According to CAL FIRE FHSZ maps, the Project Site is located adjacent to a Very High FHSZ. The Proposed Project consists of the replacement of an existing water line. No habitable structures would be constructed. The Project would not exacerbate the wildfire risks due to slope, prevailing winds, and other factors. No impact would occur.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	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?	☐	☐	☐	☒

No Impact.

The Proposed Project consists of the replacement of an existing water line. No additional infrastructure will be constructed in association with the Project. Implementation of the Project would not require the installation or maintenance of associated infrastructure that would exacerbate fire risk or result in temporary or ongoing impacts to the environment. No impact would occur.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	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?	☐	☐	☒	☐

Less than Significant Impact.

As discussed in Section 4.7, *Geology and Soils*, the Project Site is relatively flat with gentle ground surface sloping trending generally to the southwest. The Project does not include changes related to existing

drainage patterns nor would it create new risks due to downslope or downstream flooding. The Project would be required to comply with applicable local and state building codes and, therefore, would not exacerbate the potential for landslide hazards. Impacts associated with landslides as a result of runoff, post-fire slope instability, or drainage changes would be less than significant.

4.20.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.21 Mandatory Findings of Significance

4.21.1 Mandatory Findings of Significance (XXI) Environmental Checklist and Discussion

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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?	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated.

The impact analyses in the resource sections provided in this Initial Study demonstrate that the Proposed Project would not significantly degrade the quality of the environment. Potential impacts, associated with biological, cultural, and tribal cultural resources would be reduced to less than significant levels with implementation of the identified mitigation measures in the respective sections. Potential impacts to biological resources would be reduced to less than significant levels with implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-4, as described in Section 4.4, Biological Resources. With implementation of the recommended measures, the proposed Project would not degrade the quality of the environment, substantially reduce habitat, or threaten a plant or animal community. Mitigation Measures CUL-1, CUL-2, CUL-3, TCR-1, TCR-2, and TCR-3 would be implemented to ensure that inadvertent discovery of cultural or tribal cultural resources would be handled appropriately resulting in a less than significant impact.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) 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)?	☐	☐	☒	☐

Less than Significant Impact.

The Project's contribution to cumulative impacts would be less than significant. Impacts from Project construction would not contribute to cumulatively considerable impacts due to the short-term nature of construction, the localized footprint of Project construction, and the lack of other projects in the immediate vicinity of the Project that would contribute cumulative impacts.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Less than Significant Impact.

Direct and indirect impacts to human beings would be less than significant. As explained under item a) above, the Project has the potential to have a substantial adverse impact on the environment. However, none of these potential impacts would directly or indirectly impact human beings. The Project has no other potentially significant impacts. With adherence to applicable codes and regulations direct or indirect impacts on humans resulting from the Project would be less than significant.

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6.0 BIBLIOGRAPHY

American National Standards Institute (ANSI). 2013. Standard 12.9-2013/Part 3: Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-Term Measurements with an Observer Present.

California Air Pollution Control Officers Association (CAPCOA). 2017. California Emissions Estimator Model (CalEEMod), version 2020.4.0.

California Air Resources Board (CARB). 2019. State and Federal Area Designation Maps. http://www.arb.ca.gov/desig/adm/adm.htm.

_____. 2021. Emission Inventory. https://arb.ca.gov/emfac/emissions-inventory/4bac5050e3f42279b04f8bc5e191048fe51448eb.

California Department of Conservation. 2016. California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/.

_____. 2002. California Geomorphic Provinces. https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf.

California Department of Fish and Wildlife (CDFW). 2021. RareFind California Department of Fish and Game Natural Diversity Database (CNDDB). California. Sacramento, CA, California Department of Fish and Wildlife, Biogeographic Data Branch. Accessed September 2021.

_____. 2012. Staff Report on Burrowing Owl Mitigation. State of California, Natural Resources Agency, Department of Fish and Wildlife.

California Department of General Services (DGS). 2002. Environmental Impact Report for Patton State Hospital Double Perimeter Security Fence, Temporary Increase in Patients and Staff, and High-Voltage Electrical System Upgrade.

_____. 2012. Initial Study and Draft Mitigated Negative Declaration for Patton State Hospital Solar Project.

California Department of State Hospitals (DSH). 2021. Law Enforcement. https://www.dsh.ca.gov/Law_Enforcement/index.html

California Department of Transportation (Caltrans). 2018. State Scenic Highway Map. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa.

_____. 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol.

_____. 2020. Transportation- and Construction-Induced Vibration Guidance Manual.

California Energy Commission (CEC). 2021. Website: Annual Generation – County. https://ww2.energy.ca.gov/almanac/electricity_data/web_qfer/Annual_Generation-County_cms.php.

_____. 2018. 2019 Building Energy Efficiency Standards: Frequently Asked Questions. http://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf.

_____. 2020. California Energy Consumption Database. http://www.ecdms.energy.ca.gov/Default.aspx.

California Geological Survey (CGS). 2021. EQ ZAPP: California Earthquake Hazards Zone Application. Earthquake Zones of Required Investigation. California Geological Survey. Available: https://maps.conservation.ca.gov/cgs/EQZApp/app/.

California Native Plant Society (CNPS), Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v9-01 0.0). California Native Plant Society, Sacramento, CA, http://www.rareplants.cnps.org.

City of San Bernardino. 2015. Emergency Operations Plan (EOP). http://www.sbcity.org/civicax/filebank/blobdload.aspx?blobid=23649.

_____. 2005. General Plan. https://www.sbcity.org/civicax/filebank/blobdload.aspx?blobid=26199.

_____. 2016. Hazard Mitigation Plan. http://www.sbcity.org/civicax/filebank/blobdload.aspx?blobid=23650.

_____. 2021. Public Zoning Map. https://sbcity.maps.arcgis.com/apps/webappviewer/index.html?id=dcca6aa4816b4021bd9364888ba669fd.

Crockett, Alexander G. 2011. Addressing the Significance of Greenhouse Gas Emissions Under CEQA: California's Search for Regulatory Certainty in an Uncertain World.

Department of Toxic Substances Control. 2021. EnviroStor. https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=patton+state+hospital.

Dibblee, T.W., Jr. 2004. Geologic Map of the Harrison Mountain / North ½ of the Redlands Quadrangles, San Bernardino and Riverside Counties, California, Dibblee Foundation, DF-126, Scale 1:24,000.

Earth Systems Pacific. 2021. Geotechnical Engineering Report Proposed Waterline Replacement Patton State Hospital. February 11.

ECORP Consulting, Inc. (ECORP). 2021a. Aquatic Resources Delineation.

_____. 2021b. Cultural Resources Study.

Federal Emergency Management Agency (FEMA). 2008. National Flood Insurance Program. Flood Map Service Center. FIRM Panel 06071C7963H, effective August 28, 2008. https://msc.fema.gov/portal/search?AddressQuery=3102%20Highland%20Ave%2C%20Patton%2C%20CA%2092369#searchresultsanchor.

Federal Highway Administration (FHWA). 2006. Roadway Construction Noise Model.

Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment.

Harris Miller Miller & Hanson Inc. (HMMH). 2006. Transit Noise and Vibration Impact Assessment, Final Report.

Morton, Douglas M., and Miller, Fred K. 2003. Preliminary Geologic Map of the San Bernardino 30′ x 60′ Quadrangle, California.

Natural Resource Conservation Service (formerly Soil Conservation Service). 1980. Soil Survey of San Bernardino County, Southwestern Part, California.

United States Census Bureau. 2019. Quick Facts. https://www.census.gov/quickfacts/fact/table/sanbernardinocitycalifornia,US/PST045219

San Bernardino Associated Governments. 2016. San Bernardino County Congestion Management Program. https://www.gosbcta.com/wp-content/uploads/2019/10/2016-Congestion-Management-Plan-.pdf.

San Bernardino, City of. 2005. City of San Bernardino General Plan.

_____. 2021. City of San Bernardino Municipal Code.

_____. 2008. *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]).

San Bernardino Municipal Water Department. 2021. Water Reclamation. https://sbmwd.org/176/Water-Reclamation.

South Coast Air Quality Management District (SCAQMD). 2009. *Localized Significance Threshold Appendix C – Mass Rate LST Look-Up Tables*. Revised October 21, 2009. http://www.aqmd.gov/ceqa/handbook/LST/LST.html.

State of California Santa Ana Regional Water Quality Control Board. 1995. Water Quality Control Plan for the Santa Ana River Basin. https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/.

State Water Resources Control Board. 2021. GeoTracker Case Summary. https://geotracker.waterboards.ca.gov/case_summary?global_id=T0607100592.

_____. 2000. Hazardous Material Incident Report Filed with OES.

Western Electro-Acoustic Laboratory, Inc. (WEAL). 2000. Sound Transmission Sound Test Laboratory Report No. TL 96-186.

Western Science Center. 2021. Paleontological Search Records.

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LIST OF APPENDICES