

Initial Study & Mitigated Negative Declaration

Citrus Heights Water District Highland Avenue Well Project

Prepared for:

Citrus Heights Water
District

March 2020

Prepared by:



Consulting
Engineers and
Scientists

Initial Study & Mitigated Negative Declaration

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Project No. 1905755

Table of Contents

1.0	Introduction.....	1-4
1.1	Purpose of Initial Study.....	1-4
1.2	Summary of Findings.....	1-5
1.3	Other Key Public Agencies Relying on this IS/MND.....	1-5
2.0	Project Description.....	2-1
2.1	Project Location.....	2-1
2.2	Policy Framework.....	2-1
2.3	Existing Conditions.....	2-1
2.4	Project Objectives.....	2-1
2.5	Proposed Project.....	2-2
2.5.1	Phase 1: Well Construction and Testing.....	2-2
2.5.2	Phase 2: Pumping Plant Construction.....	2-5
2.5.3	Long-term Operations.....	2-6
2.6	Regulatory Requirements, Permits, and Approval.....	2-7
3.0	Environmental Checklist.....	3-1
3.1	Aesthetics.....	3-4
3.1.1	Environmental Setting.....	3-4
3.1.2	Discussion.....	3-5
3.2	Agriculture and Forestry Resources.....	3-7
3.2.1	Environmental Setting.....	3-7
3.2.2	Discussion.....	3-8
3.3	Air Quality.....	3-9
3.3.1	Environmental Setting.....	3-9
3.3.2	Discussion.....	3-11
3.4	Biological Resources.....	3-16
3.4.1	Environmental Setting.....	3-17
3.4.2	Discussion.....	3-17
3.5	Cultural Resources.....	3-22
3.5.1	Environmental Setting.....	3-22
3.5.2	Discussion.....	3-23
3.6	Energy.....	3-25
3.6.1	Environmental Setting.....	3-25
3.6.2	Discussion.....	3-25
3.7	Geology and Soils.....	3-27
3.7.1	Environmental Setting.....	3-28
3.7.2	Discussion.....	3-28
3.8	Greenhouse Gas Emissions.....	3-31
3.8.1	Environmental Setting.....	3-31
3.8.2	Discussion.....	3-31
3.9	Hazards and Hazardous Materials.....	3-33
3.9.1	Environmental Setting.....	3-34
3.9.2	Discussion.....	3-34
3.10	Hydrology and Water Quality.....	3-37

3.10.1	Environmental Setting	3-38
3.10.2	Discussion	3-39
3.11	Land Use and Planning	3-43
3.11.1	Environmental Setting	3-43
3.11.2	Discussion	3-43
3.12	Mineral Resources.....	3-45
3.12.1	Environmental Setting	3-45
3.12.2	Discussion	3-45
3.13	Noise	3-46
3.13.1	Environmental Setting	3-46
3.13.2	Discussion	3-47
3.14	Population and Housing	3-51
3.14.1	Environmental Setting	3-51
3.14.2	Discussion	3-51
3.15	Public Services.....	3-53
3.15.1	Environmental Setting	3-53
3.15.2	Discussion	3-53
3.16	Recreation	3-55
3.16.1	Environmental Setting	3-55
3.16.2	Discussion	3-55
3.17	Transportation	3-56
3.17.1	Environmental Setting	3-56
3.17.2	Discussion	3-57
3.18	Tribal Cultural Resources	3-58
3.18.1	Environmental Setting	3-58
3.18.2	Discussion	3-59
3.19	Utilities and Service Systems	3-60
3.19.1	Environmental Setting	3-60
3.19.2	Discussion	3-61
3.20	Wildfire	3-63
3.20.1	Environmental Setting	3-63
3.20.2	Discussion	3-63
3.21	Mandatory Findings of Significance.....	3-65
3.21.1	Discussion	3-65

4.0 References 4-1

5.0 Report Preparers..... 5-5

List of Tables

Table 3-1.	Federal and California Ambient Air Quality Standards and Attainment Status.	3-10
Table 3-2.	Ambient Air Quality Monitoring Data Measured at the Citrus Heights Area Monitoring Stations.	3-11
Table 3-3.	Reports of Previous Work within Project APE.	3-22
Table 3-4.	Reports of Previous Work within a Quarter Mile of Project APE.	3-22
Table 3-5.	Typical Noise Levels During Construction.....	3-48

List of Figures

Figure 2-1. Project Location Map	2-1
Figure 2-2. Site Plan.....	2-1
Figure 3-1. Photo of Project Site Looking North Towards Honey Locust Tree	3-20

List of Appendices

Appendix A – Project Site Photos

Abbreviations and Acronyms

µg/m ³	micrograms per cubic meter
APE	Area of Potential Effect
APN	Accessor Parcel Number
AFY	acre-feet per year
ASR	Aquifer storage and recovery
bgs	below ground surface
BMP	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalFire	California Department of Forestry and Fire Protection
CalOSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CARB	California Air Resource Boards
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CGS	California Geologic Survey
Church/School	First Apostolic Church / Faith Christian Academy
CHWD	Citrus Heights Water District
City	City of Citrus Heights
CO	carbon monoxide
County	Sacramento County
dB	decibels
dBA	A-weighted decibels
DOC	California Department of Conservation
DPR	Department of Parks and Recreation
EIR	Environmental Impact Report
EMD	Environmental Management Department
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
GEI	GEI Consultants, Inc.
GGRP	Greenhouse Gas Reduction Plan
GHG	greenhouse gas
gpm	gallons per minute
HCP	Habitat Conservation Plans
IS/MND	Initial Study/Mitigated Negative Declaration
KWh	kilowatts per hour
Ldn	day-night average noise level
Leq	equivalent continuous sound level in decibels
LOS	level of service
mg/m ³	milligrams per cubic meter
mph	miles per hour
NAAQS	National Ambient Air Quality Standards

NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plans
NCIC	North Central Information Center
NO ₂	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
O ₃	ozone
O&M	Operations and Management
PG&E	Pacific Gas and Electric
PM	particulate matter
PM ₁₀	particulate matter less than 10 microns in diameter
PM _{2.5}	particulate matter less than 2.5 microns in diameter
ppm	parts per million
PRC	Public Resources Code
proposed project/project	Highland Avenue Well Project
RD2	General Plan Land Use Designation and Zoning Designation
RPA	registered professional archaeologist
RWA	Regional Water Authority's
SCADA	supervisory control and data acquisition
SGA	Sacramento Groundwater Authority's
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SO ₂	sulfur dioxide
SRCS	Sacramento Regional County Sanitation and Sacramento Area Sewer Districts
SRPD	Sunrise Recreation and Park District
SVAB	Sacramento Valley Air Basin
TDS	total dissolved solids
USGS	United States Geological Survey

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1.0 Introduction

The Citrus Heights Water District (CHWD) has prepared this Initial Study/proposed Mitigated Negative Declaration (IS/MND) in compliance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines to address the potentially significant environmental impacts of the proposed Highland Avenue Well Project (Project) in Sacramento, California. CHWD is the lead agency under CEQA.

After the required public review of this document is complete, the CHWD Board of Directors will consider all comments received on the IS/MND, the entirety of the administrative record for the Project, and whether to adopt the proposed MND and a Mitigation Monitoring and Reporting Program, and approve the Project.

1.1 Purpose of Initial Study

This document is an IS/MND prepared in accordance with CEQA (California Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations [CCR]). The purpose of this IS is to (1) determine whether Project implementation would result in potentially significant or significant impacts on the physical environment; and (2) incorporate mitigation measures into the Project design, as necessary, to eliminate the Project's potentially significant or significant impacts or reduce them to a less-than-significant level. An MND is prepared if the IS identified potentially significant impacts.

An IS presents environmental analysis and substantial evidence in support of its conclusions regarding the significance of environmental impacts. Substantial evidence may include expert opinion based on facts, technical studies, or reasonable assumptions based on facts. An IS is neither intended nor required to include the level of detail provided in an environmental impact report (EIR).

CEQA requires that all State and local government agencies consider the potentially significant and significant environmental impacts of projects they propose to carry out or over which they have discretionary authority, before implementing or approving those projects. The public agency that has the principal responsibility for carrying out or approving a proposed project is the lead agency for CEQA compliance (State CEQA Guidelines, CCR Section 15367). CHWD has principal responsibility for carrying out the Project and is therefore the CEQA lead agency for this IS/MND.

If there is substantial evidence (such as the findings of an IS) that a proposed project, either individually or cumulatively, may have a significant or potentially significant impact on the physical environment, the lead agency must prepare an EIR (State CEQA Guidelines, CCR Section 15064[a]). If the IS concludes that impacts would be less-than-significant, or that mitigation

measures committed to by CHWD would clearly reduce impacts to a less-than-significant level, a Negative Declaration or MND can be prepared.

CHWD has prepared this IS to evaluate the potential environmental impacts of the Project and has incorporated mitigation measures to reduce or eliminate any potentially significant project-related impacts. Therefore, an MND has been prepared for this Project.

1.2 Summary of Findings

Chapter 3 of this document contains the analysis and discussion of potential environmental impacts of the Project. Based on the issues evaluated in that chapter, it was determined that:

The Project would result in no impacts on the following issue areas:

- Agriculture
- Mineral Resources
- Public Services
- Recreation
- Wildlife

The Project would result in less-than-significant impacts on the following issue areas:

- Aesthetics
- Energy
- Geology and Soils
- Greenhouse Gas
- Hazards and Hazardous Waste
- Land Use and Planning
- Population and Housing
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

The Project would result in less-than-significant impacts *after* mitigation implementation on the following issue areas:

- Air Quality
- Biological Resources
- Hydrology and Water Quality
- Noise

1.3 Other Key Public Agencies Relying on this IS/MND

CEQA requires that State and local governmental agencies consider the environmental effects of projects over which they have discretionary authority before taking action on those projects (Public Resources Code [PRC] Section 21000 et seq.). CEQA also requires that each lead agency avoid or mitigate to less-than-significant levels, wherever feasible, the significant environmental effects of projects it approves or implements.

As described later in Chapter 2, “Project Description,” to create the parcel for the Project (see Figure 1-1), CHWD would be requesting a Lot Line Adjustment from the City of Citrus Heights. The Subdivision Map Act allows minor adjustments of property lines between contiguous parcels, as long as the Lot Line Adjustment does not create a greater number of parcels than originally existed. CHWD would be required to submit an application to the Engineering Division of the City of Citrus Heights, including supporting documents, and fees.

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2.0 Project Description

This chapter describes the proposed Highland Avenue Well Project (Project). The Project location and policy framework are described along with existing conditions, objectives, activities, operations, and discretionary actions and approvals that may be required.

2.1 Project Location

The Project would be constructed on a 0.52-acre portion of an existing 1.0-acre parcel, Assessor's Parcel Number (APN) 211-0192-087. The parcel is addressed at 7725 Highland Avenue in Citrus Heights (see Figures 2-1 and 2-2). The Project site is located in the southwestern quarter of Section 25 in Township 10 North, Range 6 East. As a result of a proposed Lot Line Adjustment, the lot would be split in half with the well to be constructed on the northern half of the parcel.

2.2 Policy Framework

The Project is consistent with and implements the CHWD's responsibilities and obligations under the Sacramento Water Forum Agreement as a San Juan Water District consortium member (April 2000, updated October 2015), the Regional Water Authority's (RWA) American River Basin Integrated Regional Water Management Plan (June 2006, updated 2013), and the Sacramento Groundwater Authority's (SGA) Groundwater Management Plan (December 2008, revised December 2014). The facilities constructed under the Project would directly serve to operate and maintain the groundwater basin for use in drought years through conjunctive use, and water efficiency/conservation programs as provided by the regional water plans cited above.

CHWD is participating in the conjunctive management of the North American River groundwater subbasin through the RWA and the SGA. In 2019, RWA obtained Proposition 1 grant funding to implement a conjunctive use program under the Integrated Regional Water Management Program. This program will use the region's surface water when it is abundant, thus allowing the groundwater aquifers to recharge. During dry to critically dry years, the member agencies will use groundwater to meet their demands, allowing surface water to be used to meet other needs. Implementing this conjunctive management program required the construction of infrastructure to provide water supply flexibility and redundancy in the distribution systems. CHWD historically has relied upon surface water to meet its needs, with its groundwater wells being used for main system pressure in localized areas. CHWD's participation in the groundwater conjunctive use program required that CHWD construct new groundwater wells to firm up its source water supply. Part of the conjunctive use program would also allow the well to be used for aquifer storage and recovery (ASR) where treated surface water could be injected into the aquifers during times of abundant surface water and then later extracted during potentially dry years when surface water supplies may not be adequate, such as in 2015. The Highland Avenue well is estimated to produce about 1,500 gallons per minute (gpm) of potable water with only 30 feet of drawdown in the well.

Figure 2-1. Project Location Map

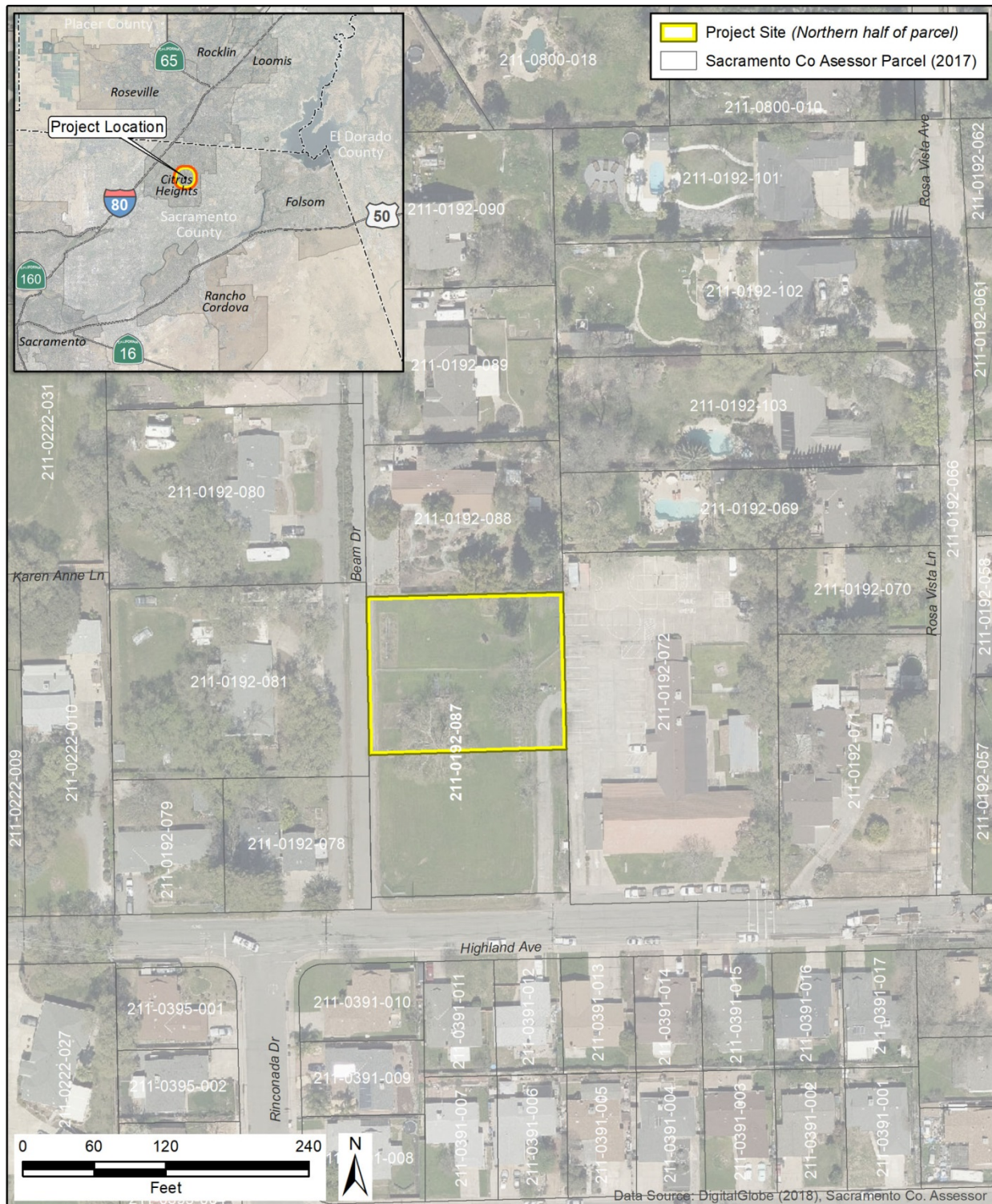
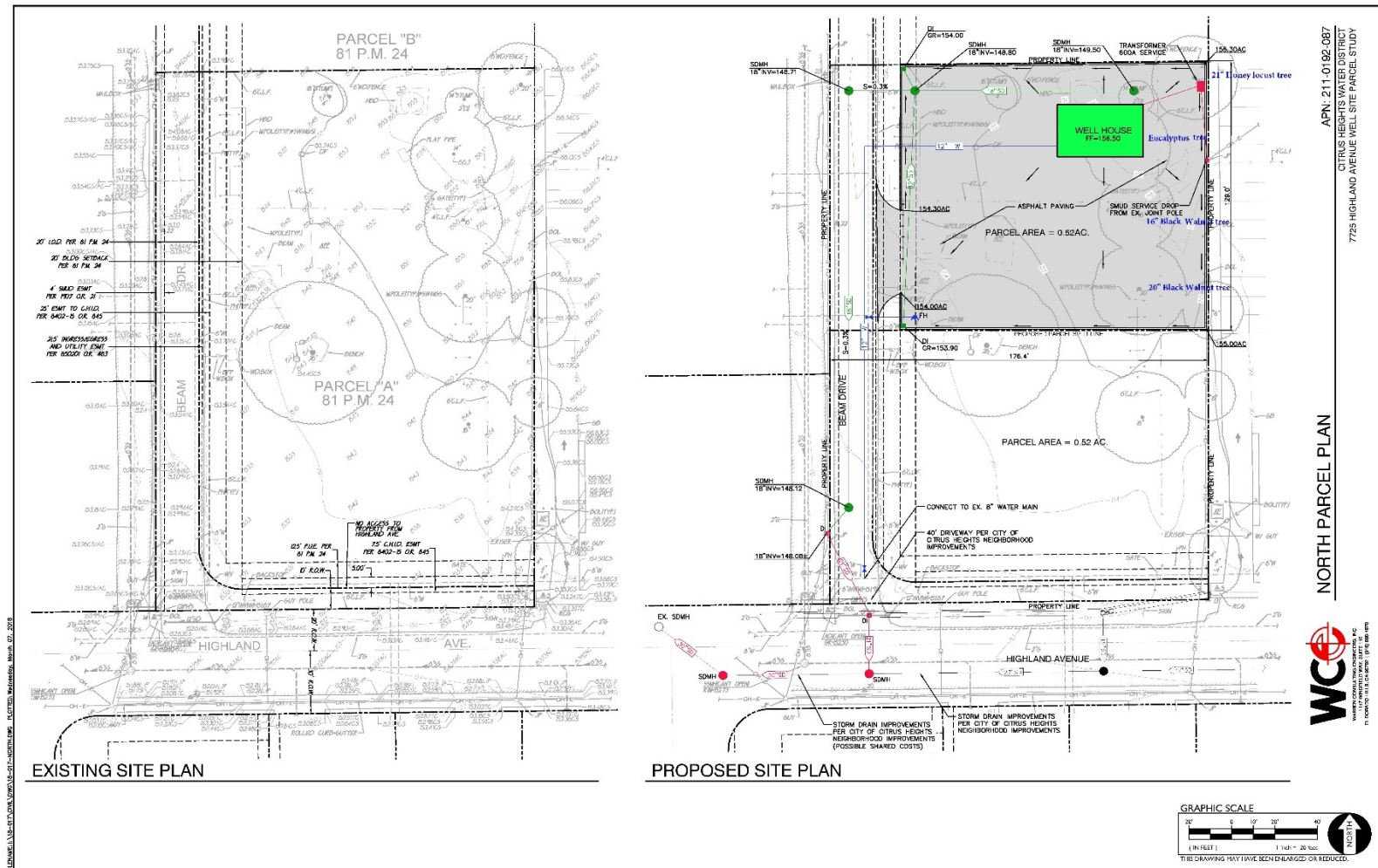


Figure Source: GEI Consultants, Inc.2020.

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Figure 2-2. Site Plan



2.3 Existing Conditions

The Project site is currently undeveloped. The Project site was formerly owned by the First Apostolic Church. There is a fence line running east-west that bisects the property. The northern portion of the site, where the Project will be constructed, is smaller than the southern portion. The northern portion appears to be part of a former playground area, but all play equipment has been removed from the northern portion. The southern portion is used presently as a playground with swing sets and climbing structures. The property to the east is the location of the Faith Christian Academy, a school for Kindergarten through 8th Grade.

There are 4 trees located on the northern portion of the site, 1 *Eucalyptus sideroxylon* (red iron bark), 2 *Juglans nigra* (black walnut) and 1 *Gleditsia triacanthos* (honey locust). On the southern portion of the site there is a *Platanus × acerifolia* (London plane).

The Project site is bounded to the north by an existing single-family home, to the west by Beam Drive and to the south and east by the above-described playground. The southern portion of the site is adjacent to Highland Avenue. On opposite sides of Beam Drive and Highland Avenue are single-family homes (see **Appendix A** for site photos).

The Project site would be accessed via Beam Drive, a paved private road off Highland Avenue. CHWD has a 25-foot easement parallel to the private road leading to the well property, and an access agreement with the owners of the road.

A test hole was drilled on the property which proved aquifers are present and that a well-constructed on the property could supply about 1,500 gpm of water that meets all drinking water standards.

2.4 Project Objectives

The Project consists of the construction and operation of a municipal water supply well and pump station within the service area of the CHWD. The proposed Highland Avenue Well is intended to provide the CHWD directly, and the region indirectly, with additional water resources for typical municipal and industrial uses, or other purposes as determined by the CHWD to:

- Supplement surface water entitlements in the event of a long- or short-term drought or surface water curtailment.
- Operate and maintain the underlying groundwater basin under a regional conjunctive use program.
- Enhance the reliability and redundancy of water supplies that are available to serve the CHWD's customers.
- Serve as a source of water supply in the event of a water infrastructure or water supply emergency.

- Serve as source of water supply to help meet the CHWD's maximum day and peak hour water supply needs.
- Provide price stability in anticipation of projected price increases for water purchases.
- Provide additional resources for fire flow requirements.

2.5 Proposed Project

The Project will consist of three phases: 1) construction of the well and testing, 2) construction of the pumping plant, and 3) long-term operation of the well for water supply. Each phase is described below. Between phases 1 and 2, up to six months of inactivity may occur.

During the well and pumping plant construction phases of the work, all construction activities would implement stormwater pollution prevention Best Management Practices (BMP) designed to reduce potential impacts to water quality and in accordance with the guidelines of the Sacramento Stormwater Management Program as follows:

- Comply with the requirements of the "General Permit for Stormwater Discharges Associated with Construction Activity",
- Preserve all existing vegetation on site where possible,
- Schedule as much project work as possible during the dry season,
- Stabilize the construction access route,
- Protect storm drain inlets,
- Use other Best Management Practices as necessary, including applying rainy season erosion controls, managing stockpiles, disposing of well development water properly, and correctly managing and disposing of construction wastes,
- Maintain all Best Management Practices, and
- Stabilize the site after construction is complete.

2.5.1 Phase 1: Well Construction and Testing

The construction and development of the well will take about 45 days to complete with periods of inactivity of 3 to 7 days between activities. All deliveries will be made during non-peak hour periods for the adjacent school when parents are dropping off or picking up their children.

In preparation for drilling, three of the four trees on the northern portion of the site (the eucalyptus; the honey locust; and the smaller, more northerly, black walnut) will be removed to allow for access for the drill rig and support equipment and material storage and for installation of the

transformer (Figure 2-2). The larger black walnut can remain in place. The London plane tree on the southern portion of the site can also remain in place.

Temporary sound barriers (16-foot tall) will be erected around the perimeter of the Project site to reduce noise effects on neighbors. Temporary fencing may also be installed to protect the public from the work area. Temporary, downward-facing, lighting will also be established to light the work area. Sanitary facilities (port-a-potty) will be brought onto site and cleaned weekly. Upon completion of the Project, all of the equipment and temporary facilities will be removed from the Project site.

A diesel-powered drill rig and support equipment will be mobilized to the Project site over a two to three-day period. About six semi-truck loads of equipment will be delivered to the site during this period. Twice per day, the construction workers will arrive in one to two pickup trucks.

Construction of the water supply well would consist of installing and sealing both outer temporary and permanent conductor casings. Well construction would begin by drilling a 48-inch hole to a depth of 80 feet. Thirty-inch diameter steel well casing will be placed into the hole and surrounded by concrete to provide the primary sanitary protection of the well in accordance with State and County regulations. An 18-inch pilot borehole beneath the conductor casing then would be drilled to a depth of 435 feet and then reamed to 28-inch diameter. Water for the well drilling and construction operations would be obtained by installing temporary hoses along the eastern edge of Beam Drive to an existing fire hydrant in front of 6828 Beam Drive. The hoses will cross one driveway where a temporary berm will be created to protect the hose(s) while maintaining access to the driveway and home.

Stainless steel well casing and screen (up to forty-foot lengths) will be delivered to the Project site and placed into the reamed borehole. The well will be constructed to a depth of 425 feet below ground surface (bgs) and draw groundwater through the well screens from three intervals between 220 and 415 feet bgs. The lower portions of the well casing and screen will be surrounded with a gravel pack and the upper portions with concrete. About six to eight diesel-powered semi-trucks will deliver the casing, screen, and gravel pack to the Project site. All of the materials will be staged on-site or potentially on the adjacent southerly property owned by the Church. Concrete will be delivered to the site in two trips. The operating hours for drilling and well construction will be 24 hours per day for a period of about 10 days with a few days off in between to allow workers to rest.

After construction of the well, the well will be developed using the drill rig, to remove residual drilling fluids and maximize the production capacity of the aquifers and minimize the drawdown. Groundwater will be extracted (air-lifted) from the well at rates of 500 to 2,200 gpm over a period of about 3 days where work will again continue 24 hours per day.

After construction and development are completed, there will be a period of 7 to 14 days where the drilling equipment will be removed from the Project site and a diesel motor driven test pump will be delivered and installed into the well. The well will be pumped (further developed and a step-drawdown test) for short periods of time for about 3 days. All equipment exchanges and

short-term pumping will occur only between the hours of 8:00 AM and 5:00 PM. Following that, a long-term test will be conducted when the well will be pumped continuously for a period of 24 hours. Water quality samples will be collected during this testing and analyzed to confirm that the water meets all drinking water standards. Thereafter, the pump will be removed, and the top of the well will be sealed until the pumping plant construction specifications and drawings are prepared and a contractor is selected. This period of inactivity may last from 3 months to 6 months.

Clear water produced during well development and pump testing will be conveyed by temporary piping laid within CHWD's easement to a storm drain inlet location on the north side of Highland Avenue, outside of the paved road, near the junction with Beam Drive. The water will be discharged under CHWD's existing permit with the State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) permit for Drinking Water Systems. Development water containing solids, including sand and silts, will be contained in settling tank(s) or by other means on-site before being discharged into the storm drain. All other waters will be contained and disposed of off-site at an appropriate facility in compliance with State law.

Drill cuttings (about 70 cubic yards) will be generated during the drilling and the development process and will be disposed of or reused at a landfill or other CHWD or developer site where clean-fill dirt is desired.

Stormwater pollution prevention BMPs will be implemented to reduce potential impacts to water quality during construction in accordance with the Sacramento Stormwater Management Program as follows:

- Comply with the requirements of the "General Permit for Stormwater Discharges Associated with Construction Activity"
- Preserve as much existing vegetation on site where possible
- Schedule as much project work as possible during the dry season
- Stabilize the construction access route
- Protect storm drain inlets
- Use other Best Management Practices as necessary, including applying rainy season erosion controls, managing stockpiles, disposing of well development water properly, and correctly managing and disposing of construction wastes
- Maintain all Best Management Practices
- Stabilize the site after construction is complete

2.5.2 Phase 2: Pumping Plant Construction

The pumping plant facility construction will consist of the construction of a building (well house) around the well to protect the electrical panels, well, pump and motor and to store chlorination chemicals and equipment. Construction of the facilities under Phase 2 will take about 180 days to complete. During this phase of work the construction period the work will be limited to 8:00 AM to 5:00 PM. All deliveries will be made during non-peak hour periods for the adjacent school when parents are dropping off or picking up their children

Work to be completed during this phase of development would include clearing and grading the area around the new pump station building. This work would be accomplished prior to the construction of the well house and all underground facilities.

The well house building would be approximately 22-feet by 33-feet, and approximately 14-feet high. The building would house the well, pumping equipment, disinfection facilities, motor control center (including instrumentation and controls) and station piping. The well house will be constructed in the northern portion of the Project site, which will allow a new well to be constructed in the southern half in the future (70 to 100 years). The well house will be constructed with concrete masonry walls and metal roofing. The building would also have a removable roof section for well and pump access.

Power for the pump and facility will be from an existing power line along the eastern side of the Project site. An electrical service, including underground primary and secondary conduits and conductors from the transformer pad to the motor control center, would be installed to provide power for the pump and operation of associated machinery. Emergency power would be provided by a portable diesel generator that would be brought to the site for testing and in the event of a sustained power outage. CHWD does not plan to install a stationary or portable diesel backup power system at the Project site. Rather, CHWD intends to use rental equipment in the case of an emergency or prolonged power outage. CHWD may periodically test rented equipment at the Project site to maintain connections in good working order and/or to train CHWD personnel in the operation of the generator.

The pump station would be equipped with an electrically driven submersible pump or an aboveground vertical turbine line-shaft pump, station piping to include valves, flanges, gauges and meters, a disinfection system utilizing calcium hypochlorite, air conditioning if necessary, and all other related appurtenances to connect to existing drinking water distribution piping along the northern edge, beneath the sidewalk, of Highland Avenue. The new piping from the well will be placed into a trench dug beneath Beam Drive. A new fire hydrant will be installed along Beam Drive to enhance local fire protection.

In addition to the water pipeline, an underground storm drain pipe will be installed to convey waste pumpage from the well, water from routine controlled testing and rehabilitation of the well, and stormwater runoff from the Project site to the existing Sacramento County municipal storm drain system located along Highland Avenue, a paved public two-way street. There is an existing storm drain inlet on Beam Drive and along Highland Avenue to drain stormwater runoff and reduce road

flooding. Upon completion of the installation of the pipeline portions of Beam Drive, asphalt disturbed by the trenching, will be repaved.

The Project site would be secured with perimeter and interior fencing. An eight-foot masonry wall would be used to reduce noise impacts along the north, south, and eastern boundaries, adjacent to the school and residential parcels. Eight-foot wrought iron fencing would be installed along Beam Drive, the western boundary of the parcel. Vehicular access from Beam Drive would be provided by an iron/steel gate, complete with gate operator, loop detectors, keyed actuators, obstruction detection device, Fire District access and commercial turnaround, and operating transmitters. All fencing and the access gate would be designed in such a manner as to not detract from the residential character of the neighborhood. All parking and driveway areas would be graded and paved with asphalt concrete paving.

2.5.3 Long-term Operations

CHWD plans to use the well under three varying conditions: 1) normal operations 2) as part of their conjunctive use program, and 3) for ASR purposes. Generally speaking, in California, ASR is the enhancement of natural groundwater supplies from a source of treated drinking water. The purpose of ASR is to increase underground water supplies by injecting water into an aquifer in times of abundant supply, and later extracting water when it is needed.

CHWD plans to use the well under normal operations for about 7 days each month to extract groundwater for potable purposes. The well will be turned on and off automatically based on public demand for water.

CHWD, as part of the conjunctive use program, may use the Highland Avenue well, in conjunction with its other wells, to pump groundwater for 180 days to replace surface water supplies annually.

CHWD may elect to use the well for ASR purposes, when surface water supplies are abundant and typically would occur during the winter months of each year or during above average rain years. Treated surface water, that meets all drinking water standards, will be injected into the well and stored in the aquifers until it is needed. CHWD may purchase the treated surface water from one of three sources (San Juan Water District, City of Roseville, or Carmichael Water District) to inject water into the aquifers. These water purveyors all obtain surface water from a common source, the American River.

The injection of surface water will be permitted through the State Water Resources Control Board, General Permit Order, and only after technical studies have proven the injection will have less than a significant effect on the groundwater quality in the aquifers. The technical studies will likely include pilot testing of the injection where the surface water will be stored underground for a period of months and then extracted to confirm the quality of water. The surface water is typically of better quality than in the aquifers and will improve the quality of groundwater once extracted from the well. Once a permit has been obtained by CHWD the injected water may be stored in the aquifers for a period of months to years and will be extracted when needed by CHWD.

During use of the well under any of the above operating conditions CHWD will monitor the well through its supervisory control and data acquisition (SCADA) system used for gathering and analyzing real-time data. Once per week CHWD personnel will visit the site to observe the well and equipment and as necessary make repairs. About once per month, based on the well being used, state required disinfection chemical (calcium hypochlorite in tablet form) will be delivered to the Project site and placed within the well house. The disinfection chemical is injected into the groundwater prior to it being placed into the distribution pipeline to prevent bacteria growth.

2.6 Regulatory Requirements, Permits, and Approval

As the lead agency under CEQA, CHWD has the principal responsibility for approving and carrying out the proposed Project and for ensuring that CEQA requirements and all other applicable regulations are met. Other agencies that may have permitting approval or review authority over portions of the proposed Project are listed below:

- **City of Citrus Heights**—The proposed Lot Line Adjustment application would need to be approved by the City.

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3.0 Environmental Checklist

Project Information

1. Project title:	Highland Avenue Well Project
2. Lead agency name and address:	Citrus Heights Water District
3. Contact person and phone number:	Mr. Brian Hensley (916) 735-7730
4. Project location:	7725 Highland Avenue, Citrus Heights, CA 95610
5. Project sponsor's name and address:	Citrus Heights Water District P.O. Box 286 6230 Sylvan Road Citrus Heights, CA 95611-0286
6. General plan designation:	Very Low Density Residential (City of Citrus Heights)
7. Zoning:	Very Low Density Residential (RD-2) (City of Citrus Heights)
8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)	The project will consist of three phases: 1) construction of the well and testing 2) construction of the pumping plant, and 3) long-term operation of the well for water supply.
9. Surrounding land uses and setting: Briefly describe the project's surroundings:	The property is bounded to the north by an existing single-family home, to the west by Beam Drive and to the east by the First Apostolic Church / Faith Christian Academy (a Church and School) and to the south by a grassy playground used by the church and school. The predominate land use in the vicinity is RD-2.
10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)	The City of Citrus Heights
11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code (PRC) Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.? Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in	United Auburn Indian Community, Buena Vista Rancheria of Me Wuk Indians, and Wilton Rancheria requested consultation. Tribal Notification Letters were sent out on February 4, 2020, and consultation is ongoing.

the environmental review process. (See PRC Section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

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. Mitigation measures are proposed for each of these resources, which will reduce impacts to the **less-than-significant** level.

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

Determination (o be completed by the Lead Agency)

On the basis of this initial evaluation:

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



Signature

2/10/20

Date

Brian Hensley

Print Name

Water Resources Supervisor

Title

Citrus Heights Water District

Agency

3.1 Aesthetics

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
I. AESTHETICS.					
Except as provided in PRC Section 21099, would the project:					
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 a 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.1.1 Environmental Setting

The Project is located in the city of Citrus Heights (City), near the western end of Highland Avenue. The Project site resides in a very low to low density residential neighborhood characterized by single-family and multi-family development. The Project site is a single parcel (APN 211-0192-087) that is currently undeveloped with 1 eucalyptus (red iron bark) tree, 2 black walnut trees, 1 honey locust, and 1 London plane tree. The property is bounded to the north by an existing single-family home, to the west by Beam Drive and to the south and east by the First Apostolic Church / Faith Christian Academy (Church/School) grass playfields. The southern grassy playground is adjacent to Highland Avenue. On opposite sides of Beam Drive and Highland Avenue are single-family homes.

The Project site is flat, and the surrounding areas have little variation in topography. Views tend to be blocked by surrounding development and scattered vegetation. There are no California Department of Transportation (Caltrans) designated scenic highways or vistas located in the Project vicinity, nor are such resources visible from the Project site (Caltrans 2020).

3.1.2 Discussion

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

Because no scenic vistas are within the viewshed of the Project and the Project is not within a scenic view, implementation of the Project would not interfere with scenic vistas or adversely affect visual character or quality. Although implementation of the Project would result in a change in the aesthetic character of the site, i.e., converting an undeveloped parcel to a well and pump station, all fencing, and the access gate would be designed in such a manner as to not detract from the residential character of the neighborhood. This would be a **less-than-significant** impact, and no mitigation is necessary.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

There are no state or locally designated scenic highways in the vicinity of the Project. Thus, implementation of the Project would not adversely affect scenic resources within a designated scenic highway. There would be **no impact**, and no mitigation is necessary.

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?

The Project is located in an urbanized area. Further, the Project would not conflict with City zoning or other regulations governing scenic quality. There would be **no impact**, and no mitigation is necessary.

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

Although there is no night lighting on the Project site, urban residential levels of night lighting occur in the vicinity of the site. Lighting is also used by the adjacent Church/School which provides additional sources of residential night lighting.

Lighting proposed for the Project would include temporary, downward-facing lights employed during the work associated with well drilling. Lighting during the construction period would be temporary in nature.

A pole-mounted site light fixture would be installed to the interior of the site to be used in the event that illumination is needed for operations and maintenance activities. The site light fixture would be equipped with shields to limit the amount of light going off site. Similarly, area lights would be mounted to the sides of the building, including adjacent to the building entrances. The pole-mounted light fixture and area lights would be manually operated as necessary only when CHWD personnel are at the site. The pole containing the site light would also contain a directional antenna for SCADA and a security camera directed at the site. Temporary sound walls would be

employed during the period of continuous well drilling and these walls would also serve to attenuate impacts from the lights employed, as well as the noise generated during this period.

Therefore, the lighting associated with the Project would not introduce a substantial, permanent change from the urban light levels already experienced in the area. There would be a **less-than-significant** impact and no mitigation is required.

3.2 Agriculture and Forestry Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
II. AGRICULTURE AND FORESTRY RESOURCES.					
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.2.1 Environmental Setting

The Project site is located in the City in a very low to low density residential neighborhood. The Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) designates the Project site as Urban and Built-Up Land (DOC 2018). No portion of the site is

designated as prime farmland, unique farmland, or farmland of statewide importance (Citrus Heights 2019a and 2019b). The Project site is not zoned for agriculture use, forestland, or timberland zoned for timberland production.

3.2.2 Discussion

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

The Project site is designated as Urban and Built-Up Land and is not subject to a Williamson Act contract. No portion of the Project site is identified as prime farmland, unique farmland, or farmlands of statewide importance. Because the Project would not convert designated farmland to a non-agricultural use, there would be **no impact**. No mitigation is required.

c, d) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? Result in the loss of forest land or conversion of forest land to non-forest use?

The Project site is not zoned for forest lands or timberland production, and no such lands exist on the Project site or in the vicinity. Because the Project would not conflict with any existing forest land or timberland productions zoning, and no changes associated with the Project are proposed that would result in the conversion of existing forest land or timber lands, **no impact** would occur. No mitigation is required.

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?

As stated above, the Project site and the vicinity does not contain farmland and forest land. Because the Project does not involve other changes in the existing environment that could result in the conversion of farmland or forest lands to other uses, **no impact** would occur. No mitigation is required.

3.3 Air Quality

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
III. AIR QUALITY.					
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations. Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.3.1 Environmental Setting

The Project is located in the Sacramento Valley Air Basin (SVAB) within Sacramento County (County). The Sacramento Metropolitan Air Quality Management District (SMAQMD) is responsible for obtaining and maintaining air quality conditions in the County.

The Federal Clean Air Act and California Clean Air Act required the U.S. Environmental Protection Agency (EPA) and California Air Resource Boards (CARB) to establish health-based air quality standards at the federal and state levels. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) were established for the following criteria pollutants: carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), particulate matter less than 10 microns in diameter (PM₁₀), particulate matter less than 2.5 microns in diameter (PM_{2.5}), and lead. Areas of the state are designated as attainment, nonattainment, maintenance, or unclassified for the various pollutant standards according to the Federal Clean Air Act and California Clean Air Act.

An “attainment” designation for an area signifies that pollutant concentrations did not violate the NAAQS or CAAQS for that pollutant in that area. A “nonattainment” designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as identified in the criteria. A “maintenance” designation indicates that the area previously categorized as nonattainment is currently categorized as attainment for the applicable pollutant; though the area must demonstrate continued attainment

for a specific number of years before it can be re-designated as an attainment area. An “unclassified” designation signifies that data does not support either an attainment or a nonattainment status. The EPA established NAAQS in 1971 for six air pollution constituents. States have the option to add other pollutants, to require more stringent compliance, or to include different exposure periods. CAAQS and NAAQS are listed in Table 3-1.

Table 3-1. Federal and California Ambient Air Quality Standards and Attainment Status.

Pollutant	Averaging Time	California Standards Concentration	Federal Primary Standards Concentration
Ozone (O ₃)	8-hour	0.07 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³) ^a
	1-hour	0.09 ppm (180 µg/m ³)	--- ^b
Respirable Particulate Matter (PM ₁₀)	24-hour	50 µg/m ³	150 µg/m ³
	Annual Arithmetic Mean	20 µg/m ³	---
Fine Particulate Matter (PM _{2.5})	24-hour	---	35 µg/m ³
	Annual Average	12 µg/m ³	12 µg/m ³
Carbon Monoxide	8-hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)
	1-hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)
Nitrogen Dioxide	Annual Average	0.03 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)
	1-hour	0.18 ppm (339 µg/m ³)	0.100 ppm (188 µg/m ³)
Lead	30-day Average	1.5 µg/m ³	---
	Rolling 3-Month Average	---	0.15 µg/m ³
	Quarterly Average	---	1.5 µg/m ³
Sulfur Dioxide	24-hour	0.04 ppm (105 µg/m ³)	0.14 ppm (for certain areas)
	3-hour	---	---
	1-hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³)
Sulfates	24-hour	25 µg/m ³	No Federal Standard
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m ³)	No Federal Standard
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m ³)	No Federal Standard

Notes: ppm = parts per million; mg/m³ = milligrams per cubic meter; µg/m³ = micrograms per cubic meter

Shaded areas indicate that Sacramento County is in non-attainment for that air pollutant standard

a On October 1, 2015, the national 8-hour ozone (O₃) primary and secondary standards were lowered from 0.075 to 0.070 ppm.

b 1-Hour ozone standard revoked effective June 15, 2005, although some areas have continuing obligations under that standard (“anti-backsliding”).

Source: CARB 2019, EPA 2016, EPA 2017, CHWD 2018.

Under the NAAQS, the County is designated as nonattainment for 8-hour ozone, PM₁₀, and PM_{2.5}, attainment for CO, NO₂, SO₂, lead, and sulfates, and unclassified for hydrogen sulfide (Citrus Heights 2010a). Under CAAQS, the County is designated nonattainment for O₃ and PM₁₀ (CARB 2019)

The area’s air quality monitoring network provides information on ambient concentrations of air pollutants in the SVAB. SMAQMD operates a monitoring station in Folsom, California, near the Project area, where air quality data for O₃ was obtained. Data for PM₁₀ and PM_{2.5} was obtained

from another site in the County. Table 3-2 compares a 5-year summary of the highest annual criteria air pollutant emissions collected at these monitoring stations with applicable SAAQS, which are more stringent than the corresponding NAAQS. Due to the regional nature of these pollutants, O₃, PM_{2.5}, and PM₁₀ are expected to be fairly representative of the Project site.

As indicated in Table 3-2, O₃, PM_{2.5}, and PM₁₀ standards have been exceeded over the past 5 years. A significant increase in particulate matter was experienced in 2018 due to the camp fire in Butte County (SMAQMD 2020).

Table 3-2. Ambient Air Quality Monitoring Data Measured at the Citrus Heights Area Monitoring Stations.

Pollutant Standards	2014	2015	2016	2017	2018
1-Hour Ozone (Folsom - Natoma Street)					
Maximum 1-hour concentration (ppm)	<u>0.100</u>	<u>0.114</u>	<u>0.111</u>	<u>0.117</u>	<u>0.105</u>
Days Exceeding ^a CAAQS 1-hour (>0.09 ppm)	7	3	6	4	5
8-Hour Ozone (Folsom - Natoma Street)					
National maximum 8-hour concentration (ppm)	<u>0.084</u>	<u>0.093</u>	<u>0.094</u>	<u>0.086</u>	<u>0.093</u>
State max. 8-hour concentration (ppm)	<u>0.085</u>	<u>0.093</u>	<u>0.095</u>	<u>0.087</u>	<u>0.094</u>
Days Exceeding ^a NAAQS 8-hour (>0.075 ppm)	14	5	13	7	9
Days Exceeding ^a CAAQS 8-hour (>0.070 ppm)	34	11	23	17	18
Particulate Matter (PM₁₀) (Del Paso Manor)					
National max. 24-hour concentration (µg/m ³)	40.0	42.0	31.0	59.0	<u>212.0</u>
State max. 24-hour concentration (µg/m ³)	42.8	<u>51.4</u>	42.2	<u>65.8</u>	<u>224.0</u>
State max. 3-year average concentration (µg/m ³)	<u>23</u>	<u>23</u>	19	<u>21</u>	<u>25</u>
State annual average concentration (µg/m ³)	18.0	18.0	17.6	<u>20.5</u>	<u>24.5</u>
Days Exceeding ^a NAAQS 24-hour (>150 µg/m ³)	0	0	0	0	12.3
Days Exceeding ^a CAAQS 24-hour (>50 µg/m ³)	0	0	0	18.6	12.2
Particulate Matter (PM_{2.5}) (Del Paso Manor)					
National max. 24-hour concentration (µg/m ³)	32.0	<u>54.4</u>	<u>46.8</u>	<u>42.0</u>	<u>228.4</u>
State max. 24-hour concentration (µg/m ³)	39.5	54.5	57.5	45.2	250.0
State annual average concentration (µg/m ³) e	8.7	10.4	9.7	<u>14.0</u>	<u>16.5</u>
Days Exceeding ^a NAAQS 24-hour (>35 µg/m ³)	0.0	8.7	3.3	6.2	10.6

Notes: Underlined Values in excess of applicable standard. ppm = parts per million / µg/m³ = micrograms per cubic meter.

2018 is the latest year of data available as of preparation of this section

a. An exceedance is not necessarily a violation.

Sources: CARB 2020, CHWD 2018

3.3.2 Discussion

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

The SMAQMD has developed a screening process to assist in determining if constructing a project in the County would exceed the construction significance threshold for pollutants. Construction of a project that does not exceed the screening level and meets all the screening parameters will be considered to have a less-than-significant impact on air quality. However, all construction projects, regardless of the screening level, are required to implement SMAQMD's Basic Construction Emission Control Practices (SMAQMD 2020).

Projects that are 35 acres or less in size generally will not exceed CHWD's construction pollutant thresholds of significance. This screening level was developed using default construction inputs in the California Emissions Estimator Model (CalEEMod). This screening level cannot be used to determine if a project's construction emissions will have a less-than-significant impact on air quality unless all of the following parameters are met; namely, the project does not:

- Include buildings more than 4 stories tall
- Include demolition activities
- Include major trenching activities
- Have a construction schedule that is unusually compact, fast-paced, involve more than two phases (i.e., grading, paving, building construction, and architectural coatings) occurring simultaneously, or involve cut-and-fill operations (moving earth with haul trucks and/or flattening terracing hills)
- Require import or export of soil materials that will require a considerable amount of haul truck activity (SMAQMD 2020)

The SMAQMD has developed a screening process to assist in determining if CO emissions from operations of a project in the County would exceed SMAQMD's operational significance threshold for CO. Operation of a project that does not exceed the screening level and meets all the screening parameters will be considered to have a less-than-significant impact on air quality.

The Project will result in a less-than-significant impact to air quality for local CO if:

- Traffic generated by the proposed project will not result in deterioration of intersection level of service (LOS) to LOS E (unstable flow at or near capacity levels) or F (forced traffic flow in which the amount of traffic approaching a point exceeds the amount that can be served).
- The project will not contribute additional traffic to an intersection that already operates at LOS of E or F (SMAQMD 2020).

CHWD has developed screening levels to help lead agencies analyze operational reactive organic gas, oxides of nitrogen, PM₁₀, and PM_{2.5} emissions from projects in the County. The screening levels shall not be used to evaluate operational emissions from projects that have one or more of the following characteristics:

- The project will include wood stoves or wood-burning appliances
- The project does not include Best Management Practices (BMP) for PM emissions
- Project trip generation rates are expected to be greater than the default trip rates in CalEEMod. The default trip rates in CalEEMod, which can be viewed in the Operational-Mobile Vehicle Trips tab, are based on standard rates from the Institute of Transportation Engineers Trip Generation Manual
- The vehicle fleet mix for the project is expected to be substantially different from the average vehicle fleet mix for the County. For example, the fleet mix associated with an industrial land use project will likely consist of a high portion of heavy-duty trucks
- The project will include mixed-use development
- The project will include any industrial land use types (possibly including stationary sources of emissions)

The Project would not include any of the disqualifying characteristics cited above. The pump and associated facilities would be powered by electricity. Implementation of the Project would not result in construction or operational emissions in excess of SMAQMD significance criteria.

The Project site is approximately 1-acre in size. There will be some grading around the well to allow the site to match the adjacent residential sites. Since the Project site is relatively small and would not require an excess amount of truck trips during construction or operation, the Project would meet SMAQMD screening criteria. Construction of a project that does not exceed the screening level, meets all the screening parameters, and implements the SMAQMD's Basic Construction Emission Control Practices, also known as BMPs, would be considered to have a less-than-significant impact on air quality (SMAQMD 2020). Implementation of the following mitigation measure would ensure that BMPs would be implemented during project construction, and this impact would be **less-than-significant after mitigation**.

Mitigation Measure 1

All projects are subject to SMAQMD rules in effect at the time of construction. Control of fugitive dust is required by CHWD Rule 403 and enforced by SMAQMD staff. CHWD shall implement, or require its contractors to implement, all of the following measures as identified by SMAQMD:

Basic Construction Emission Control Practices

- Water all exposed surfaces twice a day – exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least 2 feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by CCR, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

c) Expose sensitive receptors to substantial pollutant concentrations?

Some members of the population are especially sensitive to emissions of air pollutants and should be given special consideration during the evaluation of a project's air quality impacts. These people include children, senior citizens, and persons with pre-existing respiratory or cardiovascular illnesses, and athletes and other who engage in frequent exercise, especially outdoors. Sensitive receptors include schools, residences, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The Project site is within a residential neighborhood, and there is a Church/School adjacent to the Project site.

During construction, most of the particulate matter (PM_{2.5} and PM₁₀), emissions are released in the form of fugitive dust during ground disturbance activities, mostly during the drilling and grading phases. PM emissions are also generated in the form of equipment exhaust and re-entrained road dust from vehicle travel on paved and unpaved surfaces. Impacts from PM emissions will be temporary and will go back to normal after completing the construction phase.

Emergency power would be provided by a portable diesel generator that would be brought to the site for testing and in the event of a sustained power outage. CHWD does not plan to install a stationary or portable diesel backup power system at the Project site. Rather, CHWD intends to use rental equipment in the case of an emergency or prolonged power outage. The CHWD may

periodically test rented equipment at the Highland Avenue Well site to maintain connections in good working order and/or to train CHWD personnel in the operation of the generator.

With the implementation of Mitigation Measure 1, significant impacts to sensitive receptors during construction would be reduced to **less-than-significant**.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

During construction, there will be diesel-powered equipment in use on the Project site that will produce minor and temporary odors. During operation, the Project would consist of the operation of an electrically powered pump. No odors would be generated by this use. Potential odor effects would be **less-than-significant**, and no mitigation is necessary.

3.4 Biological Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
IV. BIOLOGICAL RESOURCES.					
Would the project:					
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.4.1 *Environmental Setting*

The Project is located in the City in a very low to low density residential neighborhood characterized by single-family and multi-family development. The Project site is a single parcel (APN 211-0192-087) that is currently undeveloped with 1 eucalyptus (red iron bark) tree, 2 black walnut trees, 1 honey locust tree, and 1 London plane tree.

The site is bounded to the north by an existing single-family home, to the west by Beam Drive and to the east by a church and school. The southern portion of the parcel is a grassy playground, used by the church and school.

There are no surface water features located within the Project site boundary. Review of aerial imagery from 1993 to 2019 does not indicate that any surface water features were ever present on the site (see Figure 2-1). Annual mowing and grading for property maintenance and weed control have adversely affected native biological resources on the Project site.

3.4.2 *Discussion*

- 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 the U.S. Fish and Wildlife Service?**

The biological habitat on the Project site has been disturbed historically by grading and mowing. Implementation of the Project would remove nonnative grassland habitat for common urban species. The Project also would require removal of four trees, which may provide nesting habitat for species protected by the Migratory Bird Treaty Act. If construction occurred during the nesting season, nesting birds could be disturbed leading to nest abandonment. Therefore, implementation of the Project could have an adverse impact on nesting birds. Implementation of the following mitigation would ensure that nesting birds would be identified prior to the start of construction, and that appropriate mitigation is implemented to avoid disturbance.

Mitigation Measure 2

CHWD or the construction contractor shall schedule vegetation removal and ground clearing activities prior to the initiation of nesting activity (March) or after fledging (August). If CHWD determines that it is infeasible to avoid construction during the nesting season, CHWD or the construction contractor shall conduct pre-construction surveys between March 1 and August 15 in potential nesting habitat to identify nest sites. If an active raptor nest or sensitive natural communities are observed within 500 feet of the Project site, CHWD shall contact California Department of Fish and Wildlife (CDFW) for guidance and/or establish a 500-foot buffer around the nest tree. If a passerine bird nest is observed during surveys, a 100-foot buffer around the nest shall be established or consultation with CDFW shall be conducted for a reduced buffer zone based on nesting phenology, site conditions, and recommendation(s) of a biological monitor. Construction activities in the buffer zone shall be prohibited until the young have fledged.

With implementation of Mitigation Measure 2, impacts to protected bird species would be reduced to a **less-than-significant** level.

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

Neither riparian habitat nor sensitive natural communities are located on or near the Project site. Thus, the Project would have **no impact** on riparian habitat or sensitive natural communities, and no mitigation is necessary.

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?

No potentially jurisdictional wetlands or Wetlands of the State or United States were identified on or near the Project site. Because the Project would not affect protected wetlands, **no impact** would occur. No mitigation is required.

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?

The Project area does not provide habitat for native resident or migratory fish. There are no wildlife nursery sites located on or near the Project site. Migratory birds may be present during construction. With implementation of Mitigation Measure 2, impacts to protected bird species would be reduced to a **less-than-significant** level.

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

In preparation for drilling, three trees will be removed from the Project site to allow for access for the drill rig and support equipment and material storage. The trees include the eucalyptus (red iron bark), the honey locust, and one of the two black walnuts. The City's Tree Preservation and Protection ordinance (Chapter 106.39) protects mature trees 19 inches or more in diameter, except Eucalyptus, among others. The black walnut that will be removed is less than 19 inches in diameter, so is not a protected tree. The eucalyptus is also not a protected tree. The honey locust tree is a protected tree because it is mature and greater than 19 inches in diameter. However, the Tree Preservation Ordinance exempts removal of trees for the protection of existing electrical power or communication lines. The honey locust tree is growing into existing powerlines (Figure 3-1). Therefore, the removal of the honey locust tree may be considered exempt from the Tree Preservation Ordinance because of its location growing into the overhead powerline.

In the event that the City determines that the honey locust tree is not exempt, implementation of Mitigation Measure 3 would ensure that loss of protected trees would be compensated as required

by the City. Implementation of the following mitigation measure would ensure compliance with the City's Tree Preservation and Protection ordinance, and this impact would be less-than-significant after mitigation.

Figure 3-1. Photo of Project Site Looking North Towards Honey Locust Tree



Mitigation Measure 3

During Project design and construction, CHWD shall avoid jurisdictional trees, including their protected zones as defined by Chapter 106.39 of the Citrus Heights Municipal Code. The CHWD or its contractor shall implement the standard policies and procedures set forth in Section 106.39.050 of the City's Municipal Code during the design and construction of proposed improvements. In the event that a protected tree cannot be avoided, CHWD or its contractor shall obtain a Tree Permit from the City and implement all requirements of the permit. The City may condition any Tree Permit involving removal of a protected tree upon the replacement of trees in kind. The replacement requirement shall be calculated based upon an inch for an inch replacement of the diameter at breast height. Alternatively, the City may require instead payment of a cash contribution based upon the cost of purchasing, planting, irrigating and maintaining the required number of 15 gallon trees. The cash contribution shall be deposited into the Tree Mitigation Fund.

With implementation of the above measures, any loss of protected trees would be compensated as required by the City. As mitigated, the Project would not conflict with any local ordinances or plans and there would be a **less-than-significant** 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?

There are no Habitat Conservation Plans (HCP), Natural Community Conservation Plans (NCCP), or other approved habitat conservation plans on or near the Project site. Because the Project would not affect an HCP, NCCP, or other habitat conservation plan, **no impact** would occur. No mitigation is required.

3.5 Cultural Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
V. CULTURAL RESOURCES.					
Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to CCR Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CCR Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including remains interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.5.1 Environmental Setting

On January 23, 2020, GEI Consultants, Inc. (GEI) archaeologist Matthew Chouest, a registered professional archaeologist (RPA), conducted research of the Area of Potential Effect (APE) and a surrounding quarter-mile radius at the North Central Information Center (NCIC). The records search included a review of NCIC's United States Geological Survey 7.5-minute topographic base maps indicating previously conducted investigations and previously reported cultural resources, Department of Parks and Recreation 523 forms, and California Historic Landmarks documentation. The records search identified no cultural resources within the APE or within a quarter mile radius. One report encompasses the project area (Table 3-3), and 1 study was carried out within a quarter mile of the Project APE (Table 3-4).

Table 3-3. Reports of Previous Work within Project APE.

Report No.	Year	Author	Title	Affiliation
10382	2006	Roland, Carol, Ph.D.	City of Citrus Heights Historical Resources Survey	Roland Nawi Associates: Preservation Consultants

Table 3-4. Reports of Previous Work within a Quarter Mile of Project APE.

Report No.	Year	Author	Title	Affiliation
6287	2004	PAR Environmental Services, Inc.	Cultural Resources Inventory of Miry Estates Project	PAR Environmental Services, Inc.

A pedestrian survey was completed on January 24, 2020, by Matthew Chouest and no prehistoric or historic archaeological resources were discovered.

3.5.2 Discussion

a, b) Cause a substantial adverse change in the significance of a historical resource pursuant to in CCR Section 15064.5? Cause a substantial adverse change in the significance of an archaeological resource pursuant to CCR Section 15064.5?

Results of the records search conducted by the NCIC show no recorded prehistoric or historic archaeological resources or historic building or structures on the Project site or within a quarter-mile radius of the site. According to the Background Report prepared for the City's General Plan, the nearest historic structure is located approximately 0.5 miles to the east of the Project site (Citrus Heights 2010b). The Dekay/Sunrise Ranch Home was originally constructed in 1868, but it is not eligible for listing in the California Register of Historical Resources or the National Register of Historic Places due to a lack of historical integrity (Citrus Heights 2010a). Further, the Project would have no impact on the Dekay/Sunrise Ranch Home.

However, Project construction could result in the destruction or degradation of unknown cultural or historic resources. This would be a potentially significant impact. Mitigation Measure 4 would facilitate actions to reduce potential impacts to unknown prehistoric, historic resources, and archaeological resources to a **less-than significant level**.

Mitigation Measure 4

Prior to initiation of construction on the project site, CHWD shall require that any construction or improvement plans contain a notation requiring that if any archaeological, cultural, or historical resources, artifacts, or other features are discovered during the course of construction anywhere on the Project site, work shall be suspended in that location until a qualified professional archaeologist assesses the significance of the discovery and provides consultation with CHWD staff. Appropriate mitigation for curation or protection of the resources, as recommended by the archaeologist, shall be implemented upon approval by CHWD. Further grading or site work within the area of discovery shall not be allowed until the preceding steps have been taken.

c) Disturb any human remains, including remains interred outside of dedicated cemeteries?

It is not anticipated that human remains, including those interred outside of dedicated cemeteries, would be discovered during ground-disturbance activities with the Project. There is no indication from the record searches or pedestrian survey that human remains are present within the Project site. However, in the event that human remains are discovered during subsurface activities, the human remains, and associated items could be inadvertently damaged. Mitigation Measure 5 would facilitate actions to reduce potential impacts to unknown human remains to a **less-than significant level**.

Mitigation Measure 5

Pursuant to §5097.98 of the California Public Resources Code, and Section 7050.5 of the California Health and Safety Code, in the event of the discovery of any human remains, all work is to stop, and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission (NAHC) shall be adhered to in the treatment and disposition of the remains.

3.6 Energy

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
VI. ENERGY.					
Would the project:					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.6.1 Environmental Setting

Electric power in the City is supplied by the Sacramento Municipal Utility District (SMUD), and natural gas is supplied by Pacific Gas and Electric (PG&E). The County consumed approximately 10,897 million kilowatts per hour (KWh) of electricity in 2018 (California Energy Commission [CEC] 2020).

3.6.2 Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The Project would involve the installation of electrical panels. Power for the pump and well house will be provided from an existing power line along the eastern side of the site. An electrical service would be installed to provide power for the pump and operation of associated machinery. Emergency power would be provided by a portable diesel generator, that would be rented in case of an emergency or prolonged power outage.

CHWD plans to use the well 7 days a month to extract groundwater for the purpose of obtaining potable water. The well will be turned on and off automatically based on public demand for water. As part of the conjunctive use program, CHWD may use the well, in conjunction with other wells, to replace surface water supplies annually. The well will be used only during times of need and will be shut off when it is not in use.

During construction, use of energy resources would be from loading, hauling, and placing material at the site, and the use of temporary lighting. Energy use from the Project would be limited to use of fuel for short-term, standard operations of construction equipment, hauling trucks and vehicles, and lighting. Emissions associated with fuel use during construction are analyzed in the "Air

Quality” and “Greenhouse Gas Emissions” sections. Project construction use of energy resources would be temporary and would not include unnecessary, inefficient, or wasteful energy use. *See*, Section 2.5.1 for a list of construction equipment and number of personnel onsite during construction. There would be **less-than-significant** impacts and mitigation is not necessary.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, beyond what is discussed in the “Air Quality” and “Greenhouse Gas Emissions” sections. The Project will require the use of energy resources for operation of the well but would provide a reliable water supply that would be beneficial to the City. There would be **no impact** and mitigation is not necessary.

3.7 Geology and Soils

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
VII. GEOLOGY AND SOILS.					
Would the project:					
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 California Geological Survey Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated),, creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.7.1 Environmental Setting

The Project site is located on Fiddymont-Orangevale-Urban land complex, 2 to 8 percent slopes, which is comprised of fine sandy loam to sandy clay loam (Natural Resources Conservation Service [NRCS] 2020). Nearby faults include an unnamed Pre-Quaternary fault that extends from the Deadman Fault, located approximately 11 miles east of the project site and is part of the Foothills Fault system. Another unnamed Pre-Quaternary fault lies approximately 15 miles to the southwest of the project site and is part of the Willows fault zone (California Geological Survey [CGS] 2010a). There are no Alquist-Priolo Earthquake Fault Zones near the project site location (CGS 2020a).

The uppermost geologic formation underlying the soils in the area of the Project is the Pleistocene and Pliocene loosely consolidated deposits formation. The Project site is not located in an area of known paleontological resources (2010b).

3.7.2 Discussion

- a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)**

The Project site location is not located within an Alquist-Priolo Earthquake Fault Zone, nor is it in the vicinity of any active faults. The City is located in Seismic Zone 3, as stated in the 2009 International Building Code (Citrus Heights 2010a). Surface rupture is most likely to occur on active faults (i.e., faults that have shown evidence of movement within the last 11,700 years). Damage from surface fault rupture is limited to linear zone generally a few yards wide. There would be **no impact** and no mitigation is necessary.

ii, iii, iv) Strong seismic ground shaking, Seismic-related ground failure, including liquefaction, or Landsides?

Strong earthquakes generally create ground shaking, effects of which are reduced with increased distance from the earthquake epicenter. The earthquakes intensity, duration, and distance from the project site will determine the area affected by ground shaking. Although there are no active faults in the vicinity of the Project site, there is still potential for ground shaking to occur. The region has experienced ground shaking from distant faults even though no recent movement has been recorded locally. The primary risk associated with seismic activity would involve minor ground shaking from distant faults (Citrus Heights 2010a). The Project would follow standard construction practices and comply with CHWD standards, which are consistent with California Building Code requirements for the state of California. Following these standards would limit seismic hazards to levels deemed acceptable in the state and region.

Soil liquefaction is a phenomenon that occurs when soils become saturated and lose shear strength in response to strong ground shaking. This typically occurs in soils that are loosely packed and have higher porosity and low permeability. The City's General Plan Background Report states that soils within the City limits have a low susceptibility to liquefaction, therefore the soils at the Project site would not be at risk of liquefaction.

The Project site consists of a flat, undeveloped parcel with 1 red iron bark tree on the northern portion of the site, 2 black walnuts, and 1 London plane along the edges of the site. There are no steep slopes that would pose a landslide risk. Grading would occur around the pump station building but would be minor and therefore not significant. There would be **less-than-significant** impacts and no mitigation is necessary.

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

The Project site consists of flat land with no steep slopes that pose a landslide risk on the Project site location. During construction some clearing, and grading activities would occur around the pumping station that could result in temporary and short-term disturbance of soils, leading to soil erosion. The soil within the Project area; Fiddymment-Orangevale-Urban land complex, 2 to 8 percent slopes, exhibit slight to moderate hazards of water erosion (NRCS 2020).

Stormwater pollution prevention BMPs would be implemented to reduce potential impacts to water quality during construction as described in Section 2.

Due to the flat topography of the Project site, implementation of the above-mentioned BMPs, and engineered drainage system, the Project would result in minimal soil erosion. There would be **less-than-significant** impacts and no mitigation is necessary.

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?

The Project would result in **less-than-significant** impacts and no mitigation is necessary. *See* response to Question "a" above.

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

The soil present at the Project site can experience low to high expansion. Typically, common engineering solutions can remedy potential expansive soils. No structures intended for human use will be constructed on the Project site. The site will be visited once a week to observe the well and equipment and make repairs as necessary. There will be **less-than-significant** impacts and mitigation is not necessary.

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?

The Project would not require the use of on-site wastewater treatment or disposal. There would be **no impact** and mitigation would not be necessary.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Since the Project site is not located in an area of known paleontological resources, and there are no unique geological features present within the area, no adverse effects to these resources would occur. This would be a **less-than-significant** impact and no mitigation is necessary.

3.8 Greenhouse Gas Emissions

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
VIII. GREENHOUSE GAS EMISSIONS.					
Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.8.1 Environmental Setting

The City adopted a Greenhouse Gas Reduction Plan (GGRP) in August 2011. The GGRP recommends communitywide strategies and measures that can collectively reduce Greenhouse Gas (GHG) emissions approximately 87,267 MTCO₂e emissions per year (equivalent to a 13.7% reduction below 2005 levels) and achieve the City's adopted emission reduction target of 10% to 15% below 2005 baseline emission levels by 2020. As addressed in the plan, GHG reduction measures are grouped within seven strategy areas – community leadership and engagement, land use and community design, transportation and connectivity, energy efficiency and conservation, water efficiency and conservation, waste reduction, green infrastructure, and public health and safety. Although CHWD and its activities are not directly regulated by the City of Citrus Heights, the Highland Avenue Well is located within the boundaries of the City of Citrus Heights and the CHWD wishes to cooperate with the City of Citrus Heights whenever possible. The GGRP includes primary and supporting measures to help achieve GHG reduction goals. Primary measures generate directly attributable GHG reductions based on current technology, empirical studies and available data, while supporting measures facilitate the reduction potential of the primary measures (Citrus Heights 2011a). The GGRP recommends 19 primary measures that collectively meet the City's target of 10 to 15 percent below 2005 levels.

3.8.2 Discussion

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

GHG emissions would be generated during the construction and operation of the Project. Temporary GHG emissions, primarily for the use of diesel-powered vehicles, would occur during the construction phases. During operations, GHG emissions would occur from maintenance

vehicles accessing the site and from secondary emissions associated with the well pump's electrical use.

The SMAQMD's adopted threshold of significance for construction and operational greenhouse gas emissions is 1,100 metric tons of carbon dioxide equivalent (MTCO₂e) per year each. The SMAQMD provides screening levels for construction and operational greenhouse gas emissions; projects that meet the screening levels are considered less than significant and do not require emissions quantification. Per the SMAQMD's guidance, operational and construction emissions from projects that are smaller than the land use sizes in the Operational Screening Levels table, that also meet the screening parameters regarding construction-generated criteria pollutants, may be considered less-than-cumulatively considerable (SMAQMD 2018). The Project meets the SMAQMD's screening parameters regarding construction-generated criteria pollutants. Therefore, project construction would result in a less-than-significant greenhouse gas impact.

During Project operations, vehicle usage would be minimal, for the operation and maintenance of the well. Therefore, the Project would not generate operational greenhouse gases that exceed 1,100 MTCO₂e. The project's contribution to global climate change through GHG emissions is Less than Significant. No mitigation is required.

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

The Project would not conflict with or obstruct implementation of any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. The City of Citrus Heights provides a greenhouse gas reduction compliance checklist for development projects to demonstrate compliance with the GGRP. However, the project is not a typical development project and the measures within the checklist are not applicable to the Project. Development of the Project would not involve on-site operations other than periodic visits from CHWD staff to operate and maintain the well. Therefore, the project would not conflict with the GGRP and would result in **no impact**. No mitigation is required.

3.9 Hazards and Hazardous Materials

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
IX. HAZARDS AND HAZARDOUS MATERIALS.					
Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.9.1 *Environmental Setting*

Queries of the State Water Resources Control Board Geotracker and California Department of Toxic Substances Control Envirostor hazardous materials sites indicate that the Project is not located on a known hazardous materials site (State Water Resources Control Board 2020; Department of Toxic Substance Control 2020). A Phase I environmental site assessment was completed for the Project site by GEI. The Phase I site assessment did not identify and hazardous materials on the site or within the vicinity (GEI Consultants, 2020).

Construction of the Project would require the use of oil, diesel fuel, paints, and solvents. During operations, well water would be disinfected with calcium hypochlorite (*see* Section 3.9.3), which would be stored on site in the pump station building.

The Church/School is located adjacent to the Project site. No other schools are located within a quarter mile of the Project site. The Project is not located within an Airport Land Use Plan. The nearest airport is the Sacramento McClellan Airport, located approximately 6.5 miles southwest of the Project site. There is no adopted Emergency Response Plan or Emergency Evacuation Plan for the Project area. The Project site is not located in a Fire Hazard Severity Zone within a state or local responsibility area (CalFire 2007 and 2008).

3.9.2 *Discussion*

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

Approximately once per month, after completion of the Project, based on the usage of the well, state-required disinfection chemical calcium hypochlorite will be delivered to the Project site and stored in the well house. The well house will be constructed with concrete masonry walls and metal roofing. The disinfection chemical will be injected into the groundwater supply prior to it being placed into the distribution pipeline to prevent bacteria growth. The well house will be locked and maintained by CHWD personnel.

Although the Project would require the use and storage of calcium hypochlorite, its presence would not result in a hazard under normal operations. Calcium hypochlorite is toxic and can cause skin and eye irritation if used improperly. The chemical is noncombustible but can accelerate the burning of combustible materials. The chemical will be secured in the locked well house, the site will be monitored once per week by CHWD personnel, and only CHWD personnel will have access to the chemical.

The SMAQMD has not identified the City as having soils that are likely to contain naturally occurring asbestos or any other hazardous materials. The County's Environmental Management Department (EMD) has identified 22 parcels that have some level of toxic materials, the Project site is not on this list. Therefore, no naturally occurring hazardous materials are likely to be

disturbed during construction. These impacts would be **less-than-significant**, and no mitigation is necessary.

During construction oil, diesel fuel, paints, solvents, and other hazardous material would be used at the site. If spilled these substances could present a localized risk to the environment and human health. All construction activities will comply with California Occupational Safety and Health Administration (CalOSHA) regulations, which would protect personnel handling hazardous materials and the environment from potential spills or releases. The storage of calcium hypochlorite would follow CalOSHA regulations.

If CHWD stores more than 55 gallons or 500 pounds of calcium hypochlorite, which is unlikely, they would be required to obtain a Hazardous Materials Business Plan from the EMD and would need to comply with the requirements set forth by the permit to avoid and control risk associated with the use and storage of hazardous materials (Citrus Heights 2010a). Compliance with CalOSHA, and County requirements would reduce risk related from hazards and hazardous materials to **less-than-significant** and no mitigation is necessary.

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

The Church/School is connected to the eastern side of the Project site. As mentioned in the previous questions, the state-required disinfection chemical calcium hypochlorite will be stored onsite and injected into the groundwater supply prior to being placed in the distribution pipeline (*see* Section 3.9.3). Under normal operations the storage of calcium hypochlorite would not result in a hazard.

In addition, the use of a backup diesel generator would be brought onsite and periodically tested and could be a source of diesel particulate matter, which is identified as a toxic air containment. The backup diesel generator would be used in the case of an emergency such as in the event of a power failure. Because there is a school located within a quarter mile of the Project site, the use of a diesel fueled backup generator could present a risk of hazardous emissions. However, the use of the backup generator would be only in the case of emergencies and would be temporary. Diesel-fueled vehicles would be used during construction and periodically during operations, however, these emissions are also short term and temporary, therefore the impacts would be **less-than-significant** and no mitigation is necessary.

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?

The Project site is not identified on lists compiled pursuant to Government Code Section 65962.5. There would be **no impact** and no mitigation is necessary.

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

The Project site is not located within an airport land use plan or within 2 miles of a public or public use airport, as there are no airports located within the City limits (Citrus Heights 2010a). The nearest airport is the Sacramento McClellan Airport, located approximately 6.5 miles southwest of the Project site. There would be **no impact** and no mitigation is necessary.

- f) **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

There is no adopted Emergency Response Plan or Emergency Evacuation Plan for the Project area. The Project would not impact any roadways. The Project would infrequently be visited by maintenance or operations personnel. The Project would not result in the modification or blockage of any evacuation route. There would be **no impacts** from the Project and no mitigation is necessary.

- g) **Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?**

The Project site is not located in a Fire Hazard Severity Zone within the state or a local responsibility area (CalFire 2007 and 2008). The Project site is within a low-density residential neighborhood and as such is not exposed to the risk of wildland fires. Construction and operation of the Project would not increase the risk of loss, injury or death from wildland fires at the Project site or within the vicinity. There would be **no impact** and no mitigation is necessary.

3.10 Hydrology and Water Quality

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
X. HYDROLOGY AND WATER QUALITY.					
Would the project:					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.10.1 *Environmental Setting*

The Project consists of the construction and operation of a new water well on an approximately 1-acre undeveloped parcel that does not contain any developed storm drainage features or natural channels. An existing utility connection consists of a storm drain inlet located on the northern side of Highland Avenue, outside of the paved road, near the convergence of Highland Avenue and Berm Drive.

The Project site is not located within 100- or 500-year flood plains as identified by the Federal Emergency Management Agency (FEMA). According to FEMA, the Project site is located in an area of “minimal flood hazard” (FEMA 2020).

The CHWD obtains water to serve its customers from both surface water and groundwater resources. Treated surface water is provided to the CHWD by the San Juan Water District. CHWD supplements its surface water supply with groundwater for readiness-to-serve purposes and to meet peaking, pressure, shortage, and emergency demands. (CHWD 2016)

CHWD maintains 6 operating wells with a projected total yield of approximately 5,000 acre-feet per year (AFY) based on the assumption of 7 months of operation, during the dry season. Well production rates vary from 800 to 2,100 gallons per minute. CHWD cycles its wells weekly to maintain operational readiness-to-serve capabilities and to supplement the surface water supply. Over the last 5 years, this “maintenance” groundwater production has averaged approximately 957 AFY. There have been no issues that affect groundwater supply pumping over the last 5 years. (CHWD 2016)

The CHWD plans to construct an additional two wells through 2022, including the Ella Way Well, anticipated to be completed in 2020, and the Project, to provide additional dry-year supplies. CHWD plans to maintain groundwater supply equivalent of 5,000 AFY from its well system. Although CHWD has no plans to increase groundwater withdrawals beyond the average 957 AFY, production could increase up to the full well capacities in successive dry year scenarios to supplement available surface water supplies consistent with CHWD’s responsibilities under the Water Forum Agreement and other regional water management plans. (CHWD 2016)

The groundwater basin underlying the CHWD is the North American sub-basin, part of the larger Sacramento Valley groundwater basin. Groundwater-bearing formations in the Project area include an upper aquifer system consisting of the Riverbank, Turlock Lake, and Laguna formations, and a lower aquifer system consisting primarily of the Mehrten Formation. The formations are typically composed of lenses of interbedded sand, silt, and clay, interlaced with coarse-grained stream channel deposits. (CHWD 2016) Groundwater in the Project area moves from sources of recharge to areas of discharge. Most recharge to the local aquifer system occurs along active stream channels where extensive sand and gravel deposits exist. As a result, the highest groundwater elevations occur near the American and Sacramento rivers.

Regional water quality analyses of the aquifers underlying the Project area have shown that groundwater found in the upper aquifer system is generally of higher quality than that found in the

lower aquifer system. Water from the upper aquifer (specifically the Laguna Formation) generally does not require treatment (unless high arsenic levels are encountered), other than disinfection for public drinking water systems. In contrast, the lower aquifer system (specifically the Mehrten Formation) generally contains higher concentrations of iron and manganese. The lower aquifer system also has higher concentrations of total dissolved solids (TDS), although this aquifer also typically meets water quality standards as a potable water source. (CHWD 2016)

The larger groundwater basin in the vicinity of the CHWD contains three significant major groundwater contamination areas. The United Pacific Railroad plume located northwest of the CHWD in Roseville and the McClellan Air Force Base plume located west of CHWD. Both plumes are down gradient of the CHWD and are not expected to impact CHWD's groundwater quality. A third groundwater contamination plume attributed to Aerojet's historic operations was first detected in groundwater south of the American River in 1979. Since that time, Aerojet has installed groundwater treatment facilities and has conducted other efforts to treat and control the plume migration. However, the plume was detected north of the American River near Fair Oaks in 2000 and another plume was detected north of the American River in 2005 near Ancil Hoffman Park in Carmichael. Additional monitoring wells and pump-and-treat facilities have been installed to monitor and treat the plumes attributed to Aerojet. (CHWD 2016).

3.10.2 Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The Project has the potential to impact groundwater and surface water quality during both well construction and operation phases.

Temporary increases in the erosion of exposed soils during construction of the well house could result in minor on-or-off site water quality impacts, particularly if rainfall events occur during the construction phases. Chemicals used during construction (fuel, lubricants, paint, coating) could be released into the environment if spilled. *See* section 3.9 "Hazards and Hazardous Materials" for more details. CHWD has identified several requirements and stormwater management practices that would be instituted during the construction phase. In coordination with the City, all construction activities would implement stormwater pollution prevention BMPs, as described in Section 2.

During construction of the Project, pump testing would occur to analyze the pumped water and confirm that it meets all drinking water standards. Clear water produced during well development and pump testing would be conveyed by temporary piping laid within CHWDs easement to a storm drain inlet located on the northern side of Highland Avenue. The water would be discharged under CHWDs existing permit with the State Water Resources Control Board NPDES permit for Drinking Water Systems. Development water containing solids, including sand and silts, would be contained in settling tank(s) or by other means on-site before being discharged into the storm drain. All other waters would be contained and disposed of off-site at an appropriate facility in compliance with state law.

With respect to construction period water quality, due to the gentle site topography, the planned drainage system, the implementation of BMPs and construction requirements as set forth above, NPDES permit requirements, and County and state well construction requirements, this would be a **less-than-significant** impact. No additional mitigation is necessary beyond required well construction standards, identified BMP, and NPDES requirements.

During operation, the Project could adversely affect groundwater or surface water. Effects to groundwater could occur if the well represented a preferred pathway for pollutant migration to groundwater. Wells that do not meet current well standards of construction may act as conduits for pollutant migration to the subsurface. However, construction and operation of the proposed well would be consistent with legally adopted standards and programs to protect the quality of groundwater in the subterranean aquifers underlying the site, as well as surface waters that may be impacted by the well facility discharges. The Project would extract groundwater at the Project site and the using a calcium hypochlorite disinfection system to treat the raw groundwater.

As mitigation for potential groundwater quality degradation that does not exceed water quality objectives, applicants seeking coverage under the proposed State Water Resource Control Board General Order (Water Quality Order 2012-0010) are required to demonstrate that:

- Injected water complies with State Board Drinking Water Program drinking water standards
- Certain minimum treatment or control measures will be implemented
- The project will not cause exceedance of any applicable water quality objectives

In summary, construction and operation of the Project as a source of drinking water would not violate any water quality standards or discharge requirements. The CHWD has not decided whether to also operate the Project well as an ASR facility. For this reason, the potential impact of the Project well's ASR component is **potentially significant**. Implementation of the following measures would ensure that implementation of the ASR component would not adversely affect groundwater quality.

Mitigation Measure 6

Prior to the operation of an ASR component to the Project well, the CHWD will submit a Notice of Intent for coverage under Water Quality Order 2012-0010 to the Central Valley Regional Water Control Board together with all information required under Section D of the Order and obtain a Notice of Acceptance.

Mitigation Measure 7

Operation of the Project well ASR component shall meet the following standards:

- Injected water shall be of a quality that will not result in exceedance of a water quality objective in compliance with the requirements of the Antidegradation Policy
- The Project well ASR component shall not negatively impact a groundwater cleanup project

- Injected water shall be treated and delivered to the injection well consistent with the requirements of all applicable San Juan Water District and CHWD domestic water supply permits
- At a minimum, the following treatment and control measures shall be required:
 - Treatment (typically flocculation, filtration, and disinfection to remove suspended solids and pathogenic microorganisms) so that all injected water is potable.
 - Adequate characterization of source water quality. If source water quality is variable through the year, operate the ASR component to optimize use of better-quality water during injection cycles.
 - Design and operation of the Project well ASR component to minimize adverse aquifer conditions and geochemistry.
 - Additional treatment when necessary to fully protect all beneficial uses.
 - Perform groundwater monitoring of the injection/extraction well and any groundwater monitoring wells to evaluate the potential for groundwater quality changes.
 - Implementation of an Operation & Maintenance Plan.
- The CHWD shall identify and implement any additional treatment and control measures comply with the requirements of the Antidegradation Policy.

Through the implementation of all the above-mentioned **Mitigation Measures (6 and 7)**, impacts would be reduced to **less-than-significant**.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The majority of water used in the CHWD comes from surface water through a contract with the San Juan Water District. CHWD's 2015 Urban Water Master Plan states that during drought years, water demand will need to be met through a conjunctive approach utilizing both surface and groundwater supplies. The proposed Project would extract untreated groundwater, which would then be disinfected onsite and pumped into CHWD's existing distribution system to augment existing surface water allotments and to provide for water emergency and fire flow purposes. The facilities constructed under the Project would directly serve to operate and maintain the groundwater basin for use in drought years through conjunctive use and water efficiency/conservation programs. The Project would have an overall beneficial impact on groundwater recharge.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

- i, ii, iii, iv) Result in substantial erosion or siltation on- or off-site; Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; 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 Impede or redirect flood flows?

Development of the Project would not substantially alter the existing drainage patterns of the site or surrounding vicinity or redirect flood flows.

The Project would create small areas of additional impervious surfaces on the wellsite. Implementation of the Project would act to replace the existing overland flow drainage pattern with surface and subsurface stormwater collection and routing. The new piping from the well will be placed into a trench dug beneath Beam Drive. In addition to the water pipeline, an underground storm drainpipe will be installed to convey waste pumpage from the well, water from routine controlled testing and rehabilitation of the well, and stormwater runoff from the property to the existing County municipal storm drain system located along Highland Avenue. There is an existing storm drain inlet on Beam Drive and along Highland Avenue to drain stormwater runoff and reduce road flooding. Upon completion of the installation of the pipeline portions of Beam Drive, asphalt disturbed by the trenching, will be repaved. No uncontrolled runoff would discharge from the site that could result in erosion and siltation along adjacent surface drainageways.

Added impervious surfaces on the Highland Avenue Well site would be small in area (~24,000 square feet maximum) but could increase the volume and peak flow of runoff generated on-site. The small acreage and the location of the Project site would reduce the potential for a substantial influence on flood volumes or routing. In addition, the project site drainage facilities and the existing off-site stormwater drainage system are designed to address existing and anticipated drainage and flooding. There would be **less-than-significant** impacts and no mitigation is necessary.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The Project is not located in a coastal area or near any large reservoirs, therefore the Project would not be located in an area subject to flooding, tsunami, or seiche zones. There would be **no impact** and no mitigation is necessary.

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

Please refer to the discussion above under (a) and (b). The Project would not result in the effects that would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. There would be **no impact** and no mitigation is required.

3.11 Land Use and Planning

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
XI. LAND USE AND PLANNING.					
Would the project:					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.11.1 Environmental Setting

The City's General Plan Land Use Designation and Zoning Ordinance Designation are consistent with each other and designate the project site as RD-2 (Very Low Density Residential) (Citrus Heights 2019a and 2019b). The Project site is currently undeveloped. The site is bounded to the north by an existing single-family home, to the west by Beam Drive and to the south and east by Church/School grass playfields. The southern grass fields are adjacent to Highland Avenue. On opposite sides of Beam Drive and Highland Avenue are single-family homes.

3.11.2 Discussion

a) Physically divide an established the community?

The Project will be located on an approximately 1-acre parcel (APN 211-0192-087) in the City in an established community characterized by very low to low density residential development. The Project site is surrounded by single-family homes, and an established Church/School grass playfield. The proposed project would not disturb the residential environment and would not divide an established community. There would be **no impact** and mitigation is not necessary.

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?

A proposed Lot Line Adjustment would split the approximately 1-acre parcel in half, with the well to be constructed on the northern half of the parcel and the southern half of the parcel available for the construction of an additional well in the future (70-100 years). The City's General Plan Land Use Designation and Zoning Designation (RD-2) would remain unchanged for the adjusted parcels. The RD-2 designation applies to areas appropriate for detached single dwellings, public and quasi-public uses, and similar and compatible uses. A utility facility; the well house, is an allowed use as stated in the City's General Plan and Zoning Ordinance (Citrus Heights 2010a and

2019b). Because the Project would not require any rezoning and is consistent with both the City's General Plan and Zoning Code, a **less-than-significant impact** would occur, and no mitigation is necessary.

3.12 Mineral Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
XII. MINERAL RESOURCES.					
Would the project:					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.12.1 Environmental Setting

The Project area is not located in a zone of known mineral or aggregate resources. The California Surface Mining and Reclamation Act Mineral Land Classification for the area is Mineral Resource Zone-1, which is defined as, “Areas containing mineral deposits the significance of which cannot be evaluated from available data...the likelihood for occurrence of significant mineral deposits is nil or slight” (Citrus Heights 2011b).

3.12.2 Discussion

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 active mining operations are present in, or near, the Project area. Implementation of the Project would not result in the loss of availability of a known mineral resource. Thus, **no impact** would result, and no mitigation is necessary.

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 active mining operations are present in, or near, the Project area. Implementation of the Project would not result in the loss of availability of a local important mineral resources recovery site. Thus, **no impact** would result, and no mitigation is necessary.

3.13 Noise

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
XIII. NOISE.					
Would the project:					
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 2 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.13.1 Environmental Setting

The Project is located in a very low to low density residential neighborhood that currently experiences urban noise sources. One major roadway, Sunrise Boulevard, is located approximately 0.4 miles to the east of the Project site. Under current conditions and forecasted 2035 conditions, traffic noise from this roadway during peak hours average over 60 decibels (dB) day to night average noise level (Ldn), which may be noticeable in the Project area (Citrus Heights 2011b). Other than traffic noise, the predominate source of noise is from surrounding residences and is characterized as low-intensity residential.

Noise impacts from the Project can be categorized as resulting from either construction or operations. Before construction activities start, the Project site would be secured with perimeter and interior fencing. Temporary sound barriers (16 feet tall) would be erected around the perimeter of the site during well construction and testing to reduce noise effects on neighbors. Upon completion of the pumping plant, an 8-foot-tall mason wall would be used to reduce noise impacts along the north, south, and eastern boundaries, adjacent to the Church/School and residential parcels.

Noise impacts related to operational use would be predominately from for the production well motor. Construction noise would be short-term and temporary, while operation noise would continue periodically throughout the lifetime of the Project.

The City's Noise Ordinance states that construction related noise is limited to the hours of 6:00 am to 8:00 pm Monday through Thursday, and the hours of 7:00 am to 8:00 pm Friday through Sunday. However, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 8:00 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner (Citrus Heights 2011b).

3.13.2 *Discussion*

- a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable standards of other agencies?**

Construction

Construction of the Project would temporarily increase the ambient noise levels within the vicinity of the Project site from the use of heavy machinery during construction activities. Increase ambient noise will occur intermittently during the construction of the well and pumping plant phases.

All work at the Project site would be performed during the hours of 7:00 a.m. to 8:00 p.m. Monday through Friday with the only exception being during the drilling for the well. For this operation, continuous work (up to 24 hours per day) would be necessary in order to protect the integrity of the well structure. Drilling will continue for a period of approximately 10 days, with a few days off in between to allow workers to rest.

Although construction activities would primarily occur only during daytime hours, uncontrolled construction noise could still be considered disruptive to residents adjacent to the Project. Typical composite noise levels for construction activities, and distances of various noise contours from construction site, are presented in Table 3-5.

Table 3-5. Typical Noise Levels During Construction¹.

		Approximate Distance (ft.) to Reduce Noise to Given dBA, Leq) ¹		
Construction Activity	Noise Level at 50 feet (A-weighted decibels [dBA], equivalent continuous sound level in decibels [Leq]) ²	60	65	70
Ground Clearing	84	790	450	250
Excavation	89	1,400	800	450
Well drilling (driver)	80	430	235	150
Foundation	78	400	220	130
Erection	85	890	500	280
Finishing (exterior)	89	1,400	800	450

¹ U.S. Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, December 1971; U.S. Department of Transportation, Federal Highway Administration, Office of Planning, Environment, and Realty, Roadway Construction Noise Model (RCNM), June 28, 2017.

² Calculations assume a 6 dBA reduction for each doubling of distance from the noise source.

The City has established standards for noise levels from activities, including construction. The exterior noise standard during daytime is 55 dBA (Leq), and during nighttime is 50 dBA (Leq). However, Section 34-88(5) of the City's Municipal Code provides the following exemption from Section 34-86 for construction activities, such as those necessary to implement all phases of work for the Project:

Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided the activities do not take place between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday, Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday, and on each Sunday after the hour of 8:00 p.m. However, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 8:00 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner.

All work necessary for the implementation of the Project would occur between the hours of 7:00 a.m. to 8:00 p.m. Monday through Friday, with the exception of drilling and constructing the well. As mentioned above, for this operation, continuous work (up to 24 hours per day) would be

¹ Source: Citrus Heights Water District, 2018

necessary in order to protect the integrity of the well structure. It is expected that this phase would take approximately 10 days. Because well drilling and construction would occur outside of the times permitted by the City, and noise levels temporarily would exceed those established by Section 34-86 of the City's Municipal Code, this would be a **potentially significant** impact and mitigation is required.

Mitigation Measure 8

To reduce the effects of construction noise on affected residents, CHWD shall implement the following measures:

- Except for drilling and constructing the well, all work necessary to implement the project shall be performed between the hours of 7 a.m. and 8 p.m. Monday through Friday
- Temporary sound walls (minimum 16 feet high) shall be installed around the work area to reduce noise impacts during drilling and construction operations.
- All equipment shall be equipped with appropriate muffler devices to reduce the noise impacts of the drilling operations.
- The use of impact wrenches shall be prohibited between the hours of 8 p.m. and 7 a.m.
- The CHWD may provide alternate nighttime accommodations if needed to mitigate noise impacts during drilling.

Operation

During operations, minimal noise would be generated from the use of the electric well motor, air conditioning, and backup diesel generator (when on site). Operation of the vertical turbine pump motor would generate a constant noise level of 70 dBA measured at five feet. The well, pump, and associated facilities would be enclosed within the well house, which would limit noise from these sources. During operations, the Project would follow all requirements set forth in the City's Heights Municipal Code Section 34-86. Implementation of the following measure would ensure that adverse noise levels would be reduced to below a level of significance. No residual impacts would remain, and no additional mitigation is necessary.

Mitigation Measure 9

The noise levels of pump station motors and other facilities at the Highland Avenue Well shall not exceed 50 dBA at the property lines. (This will ensure that Citrus Heights Municipal Noise Ordinance standards are met for adjacent existing residential uses.) At the time of well and equipment installation, adequate noise attenuation measures shall be provided to reduce noise levels to the 50-dBA standard. Motors and other noise producing equipment shall be shielded or enclosed to meet this standard. Compliance with this standard shall be demonstrated with pre- and post-construction noise measurements taken during test operations of Project facilities. The implementation of noise attenuation measures shall be to the satisfaction of the CHWD.

As set forth above, with implementation of Mitigation Measures 8 and 9, well drilling, construction operations, and long-term operations would meet the standards set forth in the City's Municipal Noise Ordinance. Therefore, impacts would be **less-than-significant**.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Ground vibration would only be caused during construction activities and would primarily occur during the well drilling phase. The human threshold for detection of vibration is approximately 0.012 inches per second but the level that typically generates concern by neighbors is 0.12 inches per second (New, 1986). Drilling may produce vibrations in excess of the detection limit (approximately 0.05 inches per second), but much less than the level which would cause a disturbance. Therefore, vibrations might be detectable, but not disturbing, by nearby sensitive receptors only temporarily, for the approximately 10-day period of drilling.

No adverse levels of vibration would be generated during Project operations. Impacts would be **less-than-significant**.

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 2 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?

The Project will not be located within the vicinity of a private airstrip or an airport land use plan, or within 2 miles of a public airport or public use airport. The nearest airport is the Sacramento McClellan Airport located approximately 6.5 miles southwest of the Project site. Therefore, there would be **no impact** and no mitigation is necessary.

3.14 Population and Housing

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
XIV. POPULATION AND HOUSING.					
Would the project:					
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.14.1 Environmental Setting

The Project site is located in the City in a very low to low density residential neighborhood. In 2010, the population of the County was estimated to be 1,418,788, and the population of the City was estimated to be 83,301 (Citrus Heights 2010a).

3.14.2 Discussion

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)?

Because the objective of constructing and operating the well and well house is to provide the CHWD with additional water resources to supplement surface water entitlements in the event of a drought or water emergency, and to provide additional resources for fire flow requirements, implementation of the Project would assist in the provision of planned housing and other urban uses. However, since the Project is for intermittent use only, and no increased water supply during normal conditions would result, no direct or indirect population growth beyond that currently anticipated by the City is expected to result from Project completion. Thus, there would be a **less-than-significant** impact and no mitigation is required.

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

The Project would be situated on a parcel approximately 1.04 acres in size. There are no housing units or any other developed uses on the Project site. Because the site is undeveloped and has no existing housing units, there would be no displacement of housing units or substantial numbers of

people; replacement housing would not be required. There would be **no impact**, and no mitigation is required.

3.15 Public Services

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
XV. PUBLIC SERVICES.					
Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.15.1 Environmental Setting

The closest fire station is Sacramento Metropolitan Fire District Station 27, approximately 2 miles north of the Project site. The Citrus Heights Police Department, located at 6315 Fountain Square Drive in Citrus Heights, supports four lieutenants, 10 sergeants, and 52 officers. The San Juan Unified School District includes some elementary schools, eight K-8 schools, eight middle schools, and nine high schools, plus an additional number of alternative schools, early childhood centers, and adult education centers. The Sunrise Recreation and Park District (SRPD) has 25 park facilities in the Citrus Heights area; Tempo Park is less-than 1 mile to the east of the project site. The City partners with the Sacramento Public Library to enhance service levels at the Sylvan Oaks Library, located at 6700 Auburn Boulevard (Citrus Heights 2018).

3.15.2 Discussion

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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:**

Because the Project does not include any housing units, there would be no increase in population or the need for public services that would require the provision of new or physically altered governmental facilities. There would **be no impact** and no mitigation is required.

3.16 Recreation

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
XVI. RECREATION.					
Would the project:					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.16.1 Environmental Setting

The SRPD currently serves approximately 142,000 residents within an estimated 27 square mile area in Citrus Heights, Carmichael, Foothill Farms, and Antelope. The SRPD administers 38 parks and open space sites in the planning area, totaling approximately 406-acres, approximately 268-acres of SPRD parkland exist within the City limits. In addition to providing designated parks and facilities, the SRPD also offers programs for families including arts, crafts, dance, tennis, basketball self-defense, preschool, senior adult social programs, and more. The Sunrise Oak Park is located approximately 0.75 miles northeast of the Project site.

3.16.2 Discussion

a, b) 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 or include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

The Project is not growth inducing and would not involve the construction of new housing or facilities that would increase the use of neighborhood or regional parks, or related facilities. The construction of the Highland Avenue Well would not require the development of new recreational facilities.

The existing playground on the southern portion of the parcel will remain undisturbed.

There would be **no impact** and no mitigation is required.

3.17 Transportation

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
XVII. TRANSPORTATION.					
Would the project:					
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.17.1 Environmental Setting

The Project site is located on Highland Avenue with the closest main roadway being Sunrise Boulevard, located approximately 0.4 mile to the east. The City's General Plan identifies Sunrise Boulevard as having a low to moderate Access Control (Citrus Heights 2010a). The Access Control is defined as low, moderate, or high depending on the number of driveways, frequency of stops, and prevailing travel speeds. The Sacramento Regional Transit operates bus and light rail transit that services the County. Class I, II, and III bicycle lanes are provided in select areas of the City. There are no congestion management plans, or adopted policies, plans, or programs supporting alternative transportation in the City.

The Project site would be accessed via Beam Drive, a paved private road off Highland Avenue. CHWD has a 25-foot easement parallel to the private road leading to the well property, and an access agreement with the owners of the road. Regional access is provided via Interstate 80, Greenback Lane, Sunrise Boulevard, Auburn Boulevard, and Old Auburn Road. Pedestrian sidewalks are provided along Highland Avenue and adjacent streets. Multiple transit stops are provided along Sunrise Boulevard.

During construction, workers, construction supplies and equipment will be transported to the site. The actual number of trips will vary by day and depend upon the phase of construction and construction supply needs. During operations, there would be no regular on-site employees. Once per week, CHWD personnel would visit the site to observe the well and equipment and as necessary make repairs. After project completion, about once per month, state required disinfection

chemical (calcium hypochlorite) would be delivered to the property and placed within the well house (*see* Section 3.9.3).

3.17.2 Discussion

a and b) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

During construction, all deliveries will be made during non-peak hour periods for the adjacent Church/School when parents are dropping off or picking up their children. Traffic on Highland Avenue and Berm Drive (a private road) is low, and the addition of construction traffic would not be substantial and would not decrease the level of service on either of these roads.

During Project operations there would be no regular on-site employees. Under normal operations, once per week CHWD personnel will visit the site to observe the well and equipment and make any necessary repairs. Upon completion of the Project, about once per month, depending on how often the well is used, state required disinfection chemical will be delivered to the site and placed within the well house (*see* Section 3.9.3). No transportation modification will be made or constructed as a result of the Project. Implementation of the Project would not conflict with any applicable plans, programs, or policies related to transportation. There would be **less-than-significant** impacts, and no mitigation is necessary.

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

Implementation of the Project would not result in any changes to local roadways. The Project site would be accessed by Beam Drive, a paved private road off Highland Avenue. There would be no increase in hazards due to a geometric design feature or incompatible uses. There would be **no impact** and no mitigation is necessary.

d) Result in inadequate emergency access?

No designated emergency routes are located in the vicinity of the Project. Highland Avenue will remain open during all phases of the Project. All material will be staged onsite or on the adjacent southerly property owned by the Church/School. Therefore, there would be **no impact** and no mitigation would not be necessary.

3.18 Tribal Cultural Resources

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
XVIII. TRIBAL CULTURAL RESOURCES.					
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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:					
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.18.1 Environmental Setting

A Tribal Sacred Lands search request was filed with the NAHC. The search was completed with the conclusion that no tribal cultural resources are located on or in the vicinity of the Project site (NAHC 2020).

Records of the known cultural resources found in the County are included in the files of the Office of Historic Preservation, California Historical Resources Information System. The NCIC, housed at California State University, Sacramento, locally administers these records. A cultural resources records search was conducted at the NCIC for the Project site and a surrounding quarter-mile radius to determine its historic and cultural sensitivity (NCIC 2020). Based on the records search, there are no known prehistoric or historic archaeological resources on the Project site or in a quarter mile radius that have been reported to the NCIC. A pedestrian survey was completed on January 24, 2020, by GEI archaeologist Matthew Chouest, RPA, and no prehistoric or historic archaeological resources were discovered.

Tribal Consultation

Consistent with the requirements of Public Resource Code Section 21080.3.1(b), CHWD has received written requests to be notified of projects in which CHWD is the Lead Agency under CEQA from the Wilton Rancheria, United Auburn Indian Community, and the Buena Vista

Rancheria of Me Wuk Indians. Therefore, on February 4, 2020, CHWD sent letters offering project consultation to these tribes. The letters provided a brief description of the Project and its location, the lead agency contact information, and a notification that each tribe has 30 days from receipt of CHWD's letter to request consultation. The 30-day response period concluded on March 5, 2020.

Should one or more of the tribe's request consultation on the Project, a summary report of the consultation process shall be made an addendum to this Initial Study/Mitigated Negative Declaration for review by the CHWD Board of Directors prior to their consideration of the Project.

3.18.2 *Discussion*

- a, b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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 listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k)? 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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

The search for Tribal Sacred Lands resources conducted by the NAHC yields negative results. Additionally, a NCIC Records Search for cultural resources found no prehistoric archaeological resources on the project site or within a quarter mile radius that have been reported to the NCIC. In making an offering of consultation to registered tribes pursuant to PRC Section 21080.3.1, the CHWD has met the initial requirements of AB 52. Because CHWD has initiated consultation with registered tribes, and no known tribal cultural resources or other prehistoric cultural resources were identified that are listed or eligible for listing in a register of historic resources, a **less-than-significant impact** would result, and no mitigation is necessary.

3.19 Utilities and Service Systems

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
XIX. UTILITIES AND SERVICE SYSTEMS.					
Would the project:					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider that 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.19.1 Environmental Setting

The Project site location and vicinity are served by Sacramento Municipal Utility District (SMUD) for electrical power. The Sacramento Regional County Sanitation and Sacramento Area Sewer Districts (SRCSD) provides public wastewater conveyance, treatment, and disposal in urban areas of the County (Citrus Heights 2010). The City is supplied potable water by three separate water purveyors; CHWD, California American Water Company, and Sacramento Suburban Water District. The City currently contracts residential solid waste collection and recycling services to Allied Waste System, a privately-owned waste disposal company. Commercial solid waste

collection is currently provided by eight commercial haulers that are currently franchised to provide collection and recycling services.

3.19.2 Discussion

- 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?**

The Project would include an electrical motor-driven pump, a disinfection system, and associated facilities to pump, treat, and transport water into the CHWD potable water district system. An underground storm drainpipe will be installed to convey waste pumpage from the well, water from routine controlled testing and rehabilitation of the well, and stormwater runoff from the property to the existing County municipal storm drain system located along Highland Avenue, a paved public two-way street. The Project would not result in a significant amount of wastewater as a result of the disinfection system or pumping process and would not require the construction or expansion of wastewater treatment. No utility services would need to be constructed or expanded as a result of the Project. Implementation of the Highland Avenue Well would result in **less-than-significant impacts**, and no mitigation is necessary.

- b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?**

The Project would not require a water supply. The Project is for the construction and operation of a new water well which will provide the City with local, long-term reliable water supply. There would be **no impact** and no mitigation is necessary.

- c) Result in a determination by the wastewater treatment provider that 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?**

See Question "a" above. The Project would not result in a significant amount of wastewater as a result of the disinfection system or pumping process. The wastewater treatment provider (SRCSD) would be able to serve the Project site. There would be **less-than-significant impacts** and no mitigation is necessary.

- d and e) 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? Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?**

The Project would not create substantial amounts of solid waste, and as such would not exceed the capacity of local infrastructure. No solid waste collection services would be provided to the Project site. Solid waste generated during well operations would be disposed of at the appropriate facility. In preparation for drilling, four trees would be removed from the property, and after the

construction of the new pump building station, the areas surround the new building would be cleared and graded. All vegetation removed from the site would be disposed of at a licensed waste facility. The Project would comply with federal, state, and local management and reduction statues and regulations related to solid waste. There would **be less-than-significant** impacts and no mitigation is necessary.

3.20 Wildfire

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
XX. WILDFIRE.					
If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.20.1 Environmental Setting

The City is not located in a Fire Hazard Severity Zone within a state or local responsibility area (CalFire 2007 and 2008). The closest fire station is Sacramento Metropolitan Fire District Station 27, located approximately 2 miles north of the Project site.

3.20.2 Discussion

a, b, c, and d) Substantially impair an adopted emergency response plan or emergency evacuation plan? 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? 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? 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?

The Project site is not located in a Fire Hazard Severity Zone. The Project site is flat and undeveloped, with 1 red iron bark tree located on the northern portion of the site, and 2 black walnuts and 1 London plane along the edges of the Project site. The Project would include the removal of four trees for the construction and operation of a new water well in the CHWD, and the construction of an associated locked well house built around the well to protect the electrical panels, well, pump, and motor. The well house would also serve as storage for calcium hypochlorite (*see* Section 3.9.3) and equipment. The Project includes installing a new fire hydrant along Beam Drive. After construction, there would be no increase in the number of users at the site, during construction there would be a minimal increase of users at the site. The Project would not require any infrastructure that would exacerbate fire risk or risk of flooding, slope instability, or drainage changes. There would be **no impact** and mitigation would not be necessary.

3.21 Mandatory Findings of Significance

Environmental Issue	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Beneficial Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE.					
Would the project:					
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 an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.21.1 Discussion

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

As discussed above, the Project has the potential to adversely impact air quality (construction dust, Section 3.3), biological resources (migratory birds, protected trees, Section 3.4), undiscovered cultural resources (Sections 3.5, 3.18), greenhouse gases (emissions, Section 3.8), hydrology and

water quality (pollutant runoff, Section 3.10) and noise (operations, Section 3.13). With the implementation of mitigation measures identified in this Initial Study (*see below*), all potential impacts would be reduced to a **less-than-significant** level. No significant or potentially significant impacts would remain.

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

The Project would accommodate CHWD, City, regional, and statewide environmental goals to provide for adequate sources of water. While the Project would indirectly contribute to cumulative impacts associated with increased urban development in the CHWD service area and the City, these impacts have previously been evaluated by the City and considered in the City’s approval of the General Plan. The Project would not make a cumulatively considerable contribution to these cumulative effects, this would be a **less-than-significant** impact, and no mitigation is required.

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

Because of existing regulation and monitoring of many potential environmental impacts, and with the implementation of mitigation measures identified in this report, the Project would not have the potential to cause substantial adverse effects on human beings. This would be a **less-than-significant** impact, and no mitigation is required.

4.0 References

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Appendix A – Project Site Photos



Facing east at the western side of the project site, towards the Church/School.



Facing northwest at the northern side of the project site.



Facing south, at the southern portion of the west side of the project site.



Facing northeast from the southern boundary of the project site.