
Initial Study/Mitigated Negative Declaration
Grace Way Well Project

NOVEMBER 2023

Prepared for:

SCOTTS VALLEY WATER DISTRICT

2 Civic Center Drive

Scotts Valley, California 95066

Prepared by:

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Proposed Mitigated Negative Declaration

Project Name: Grace Way Well Project

Lead Agency and Project Proponent: Scotts Valley Water District
2 Civic Center Drive
Scotts Valley, California 95066

Project Location: 5297 Scotts Valley Drive, Scotts Valley, California 95066 (Assessor's Parcel Number [APN] 022-031-13)

Project Description: The Scotts Valley Water District (SVWD) proposes to construct and operate one new groundwater extraction well on SVWD-owned property at 5297 Scotts Valley Drive, Scotts Valley, California (APN 022-031-13). The well would be 1,000 feet deep into the Lompico and Butano aquifers of the Santa Margarita Groundwater Basin. The primary purpose of the Project is to provide redundancy and allow for increased extraction capacity to meet SVWD customer water demand as older wells reach the end of their useful life and are taken out of service, as well as strengthen the SVWD's ability to meet potential demand to deliver water to neighboring agencies under drought or emergency conditions in support of regional water supply planning efforts. Additionally, the Project would provide drought resiliency by enabling the SVWD to shift groundwater pumping away from areas where the greatest Lompico aquifer groundwater level declines have historically occurred in south Scotts Valley. The well would have a design capacity of 600 gallons per minute and could be operated continuously or for shorter intervals, depending on water demand.

Finding: A Mitigated Negative Declaration (MND) has been prepared by the SVWD for the Project in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) and the CEQA Guidelines (Title 14 of the California Code of Regulations [CCR] 15000 et seq.). The SVWD is the lead agency for the preparation of the MND. The SVWD Board of Directors (Board) is the governing body and has the authority to adopt the CEQA document and provide other approvals for the Project. The SVWD is the point of contact for the CEQA process.

The SVWD prepared the attached Initial Study which determined that the Project may result in potentially significant environmental impacts on biological resources, cultural and tribal cultural resources, geology and soils, hydrology and water quality, and noise, but incorporation of the mitigation measures identified in the Initial Study would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur.

The SVWD has distributed this proposed MND and Initial Study for public review from November 20 to December 20, 2023. On the basis of the Initial Study, the SVWD has determined that, with incorporation of Project-specific mitigation measures identified in the Initial Study, the Project would not result in a significant adverse effect on the environment. There is no substantial evidence, in light of the whole record before the lead agency, that the Project, as revised, may have a significant effect on the environment. Therefore, the preparation of an environmental impact report (EIR) is not required. The supporting technical reports that constitute the record of proceedings upon which this determination is made are available for public review at the SVWD office at 2 Civic Center Drive, Scotts Valley, California, 95066, between 8:00 a.m. and 5:00 p.m., Monday through Thursday.

Mitigation Measures: The six mitigation measures identified in the Initial Study are listed below, and will be incorporated into the Project design or as conditions of approval, to ensure that any potential effects on the environment will not be significant.

Summary of Impacts and Mitigation Measures

Impact	Mitigation Measure
Biological Resources	
<p>Project construction could result in the loss or abandonment of active nests of birds protected under the Migratory Bird Treaty Act and/or the California Fish and Game Code, as a result of construction-related noise and disturbance.</p>	<p>MM BIO-1: Pre-Activity Surveys for Nesting Birds. Within 14 days prior to any ground-disturbing activities or vegetation clearing during the nesting season, a qualified biologist or biological monitor shall conduct a pre-activity nesting bird survey of all potential nesting habitat within the Project site, including a 100-foot buffer for passerine species and a 300-foot buffer for raptors. If there is a lapse between the survey time and initiation of work activities of 14 days or greater, the nesting bird survey shall be repeated. If active nests are found during the survey, work in that area shall stop and a qualified biologist or biological monitor shall determine an appropriate no-work buffer around the nest based on the activity and species and mark the buffer using flagging, pin flags, lathe stakes, or similar marking method. No work shall occur within the buffer until the young have fledged or the nest(s) are no longer active, as determined by the biologist or biological monitor.</p>
Cultural and Tribal Cultural Resources	
<p>In the event that ground-disturbing construction activities were to unearth previously unidentified archaeological resources, the Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.</p>	<p>MM CUL-1: Discovery of Unique Archaeological Resources, Historical Resources of Archaeological Nature, and Subsurface Tribal Cultural Resources. If archaeological resources (sites, features, or artifacts) are exposed during construction activities for the Project, all soil-disturbing work within 100 feet of the find shall immediately stop until a qualified archaeologist meeting the Secretary of the Interior’s Professional Qualifications Standards can evaluate the significance of the find. The archaeologist will determine whether additional study is warranted. Should it be required, the archaeologist shall install temporary flagging around a resource to avoid any disturbances from construction equipment.</p> <p>If the resource has potential to be a unique archaeological resource, a historical resource of an archaeological nature, or a subsurface tribal cultural resource, the qualified archaeologist, in consultation with the lead agency, shall prepare a research design and archaeological evaluation plan to assess whether the resource should be considered significant under CEQA criteria.</p> <p>If the resource is determined significant, the lead agency shall provide for preservation in place. If preservation in place is not possible, the qualified archaeologist, in consultation with the lead agency, will prepare a data recovery plan for retrieving data relevant to the site’s significance. The data recovery plan shall be implemented prior to, or during, site development (with a 100-foot buffer around the resource). The archaeologist shall also perform appropriate technical analyses, prepare a full written report and file it with the Northwest Information Center, and provide for the permanent curation of recovered materials. The written report will provide new recommendations, which could include, but would not be limited to, archaeological and Native American monitoring for the remaining duration of Project construction.</p>

Summary of Impacts and Mitigation Measures

Impact	Mitigation Measure
<p>In the event that ground-disturbing construction activities were to unearth previously unidentified human remains, the Project could disturb human remains, including those interred outside of formal cemeteries.</p>	<p>MM CUL-2: Human Remains. In accordance with Section 7050.5 of the California Health and Safety Code, if potential human remains are found, immediately notify the lead agency and the Santa Cruz County Coroner of the discovery. The coroner will decide the nature of the remains within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, can occur until a determination has been made. If the County Coroner determines that the remains are, or are believed to be, of Native American ancestry, the coroner will notify the Native American Heritage Commission within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the Native American Heritage Commission will appoint a Most Likely Descendant (MLD), who will be authorized to provide recommendation to the lead agency regarding the preferred treatment of the remains and any associated objects and/or materials.</p>
Geology and Soils	
<p>The Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.</p>	<p>MM GEO-1: Paleontological Resources Impact Mitigation Program and Paleontological Monitoring. Prior to commencement of any grading activity on site, the Scotts Valley Water District shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (2010) guidelines. The qualified paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the Project that shall be consistent with the SVP (2010) guidelines and include the following: preconstruction meeting attendance and worker environmental awareness training; locations where paleontological monitoring is required within the Project site based on construction plans and/or geotechnical reports; procedures for adequate paleontological monitoring and discoveries treatment; and paleontological methods (including sediment sampling for microinvertebrate and microvertebrate fossils), reporting, and collections management. Costs for laboratory and museum curation fees (if fossils are recovered) shall be the responsibility of the Scotts Valley Water District. A qualified paleontological monitor shall be on site during initial rough grading and other significant ground-disturbing activities, including large diameter (two feet or greater) drilling below a depth of five feet below the ground surface. No paleontological monitoring is necessary during ground disturbance within artificial fill, determined to be present. In the event that paleontological resources (e.g., fossils) are unearthed during grading or drilling, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot radius buffer. Once documentation and collection of the find is completed, the monitor will allow grading to recommence in the area of the find.</p>

Summary of Impacts and Mitigation Measures

Impact	Mitigation Measure
Hydrology and Water Quality	
<p>Construction activities could result in erosion and sedimentation, as well the discharge of chemicals and materials, that could violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.</p>	<p>MM HYD-1: Implement Stormwater Control During Construction. Erosion control and stormwater pollution prevention best management practices (BMPs) shall be implemented to prevent the discharge of construction waste, sediment, debris, or contaminants during construction activities. BMPs shall include, but would not be limited to, the following:</p> <ul style="list-style-type: none"> ▪ Installation of perimeter sediment controls such as silt fences, fiber or straw rolls, and/or bales along limits of work/construction areas; ▪ Minimizing temporary stockpiling of excavated material, locating stockpiled spoils in areas where it cannot enter the storm drain system, and covering of stockpiled spoils; ▪ Revegetation and physical stabilization of disturbed graded and staging areas; ▪ Sediment control including fencing, dams, barriers, berms, traps, and associated basins; ▪ Wind erosion controls such as watering active construction areas as necessary to control fugitive dust, covering inactive storage piles, and covering all trucks hauling dirt or loose materials off site; ▪ Storage of hazardous materials within an established containment area; ▪ Inspection of construction equipment daily for leaks of oil, lubricants, or other potential stormwater pollutants, placement of plastic over any ground surface where fueling or equipment maintenance is to occur, and placement of drip pans under equipment parked on site; and ▪ Keeping emergency spill kits and an adequate supply of erosion control materials (gravel, straw bales, shovels, etc.) on site at all times.
Noise	
<p>Construction activities could result in generation of a substantial temporary increase in ambient noise levels in excess of the daytime and nighttime Federal Transit Administration construction noise level thresholds at the nearest noise-sensitive residential land use to the northwest (at a distance of 40 feet).</p>	<p>MM NOI-1: Construction Noise. The Scotts Valley Water District and its contractor shall implement appropriate best management practices (BMPs) to reduce construction noise levels emanating from construction activities with a primary goal to minimize disruption and annoyance at existing noise-sensitive receptors in the Project vicinity. A detailed construction noise reduction plan shall be developed identifying the schedule for major noise-generating construction activities and procedures for coordination with the owner/occupants of nearby noise-sensitive land uses, so that construction activities can be scheduled to minimize noise disturbances. The Project's contractor shall implement, but would not be limited to, the following measures related to construction noise:</p>

Summary of Impacts and Mitigation Measures

Impact	Mitigation Measure
	<ul style="list-style-type: none"> ▪ Restrict construction activities and use of equipment that have the potential to generate significant noise levels (e.g., use of concrete saw, mounted impact hammer, jackhammer, rock drill, etc.) to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, and between 8:00 a.m. and 6:00 p.m. on Saturdays and Sundays. ▪ Construction activities requiring operations continuing outside of daytime hours (e.g., borehole drilling) shall locate noise-generating equipment as far as feasibly possible from noise-sensitive receptors. ▪ Construction equipment and selection thereof shall make use of quiet technologies where such technologies or models exist. ▪ Maximum physical separation, as far as practicable, shall be maintained between construction equipment and adjacent noise-sensitive land uses/receptors. ▪ Construction equipment and vehicles shall be fitted with efficient, well-maintained mufflers that reduce equipment noise emission levels at the Project site. Internal-combustion-powered equipment shall be equipped with properly operating noise-suppression devices (e.g., mufflers, silencers, wraps) that meet or exceed the manufacturer’s specifications. Mufflers and noise suppressors shall be properly maintained, tuned, and inspected on a routine basis to ensure proper fit, function, and minimization of noise. ▪ Impact tools shall have the working area/impact area shrouded or shielded whenever possible, with intake and exhaust ports on power equipment muffled or suppressed and directed away from nearby noise-sensitive receptors. This may necessitate the use of temporary or portable, application-specific noise shields, enclosures, or barriers. ▪ Site support equipment such as pumps, generators, air compressors and other stationary noise-generating equipment shall be located within acoustically treated enclosures, shrouded, or shielded to prevent the propagation of sound in the direction of nearby noise-sensitive receptors in the surrounding areas, regardless of construction hours. Acoustical enclosures, shrouds, or temporary barriers shall meet or exceed a sound transmission class (STC) rating of 27 or greater. ▪ Construction equipment shall not be idled for extended periods of time (i.e., 5 minutes or longer) in the immediate vicinity of noise-sensitive receptors or when not foreseeably in use.

Summary of Impacts and Mitigation Measures

Impact	Mitigation Measure
	<ul style="list-style-type: none"> ▪ The contractor shall designate and identify a “disturbance coordinator” who will be the responsible point of contact for construction noise concerns or complaints. The disturbance coordinator’s contact phone number along with the appropriate Scotts Valley Water District contact information shall located on a sign, conspicuously placed and clearly visible to the public. The disturbance coordinator will determine the cause of the noise complaint and respond to or implement corrective action within 48-hours, to resolve the issue(s) which the complaint is regarding. All complaints shall be logged, noting the date, time, issuing party’s name and contact information, the nature of the complaint, and any corrective action taken to resolve the issue.
<p>The Project would result in the construction of new water facilities, the construction of which could cause significant environmental effects.</p>	<p>See MM BIO-1, MM CUL-1, MM CUL-3, MM GEO-1, MM HYD-1, and MM NOI-1 listed above.</p>

David McNair, General Manager
 Scotts Valley Water District

Date

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
3CE	Central Coast Community Energy
AB	Assembly Bill
ACM	asbestos-containing material
ADT	average daily traffic
AMBAG	Association of Monterey Bay Area Governments
ANSI	American National Standards Institute
APN	Assessor's Parcel Number
ASTM	American Standards for Testing and Measurement
BAAQMD	Bay Area Air Quality Management District
Basin Plan	June 2019 Water Quality Control Plan for the Central Coastal Basin
bgs	below ground surface
BMP	best management practice
BSA	biological study area
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Division of Occupational Safety and Health
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CCZEVS	Central Coast Zero Electric Vehicle Strategy
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH ₄	Methane
CHL	California Historical Landmarks
CHRIS	California Historical Resources Information System
City	City of Scotts Valley
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide

Acronym/Abbreviation	Definition
CO ₂ e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibels
DOC	Department of Conservation
DTSC	Department of Toxic Substances Control
DPM	diesel particulate matter
DWR	Department of Water Resources
DWSAP	Drinking Water Source Assessment Program
EIA	U.S. Energy Information Administration
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHSZ	fire hazard severity zone
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GHG	greenhouse gas
GIS	geographic information system
gpm	gallons per minute
GSP	Groundwater Sustainability Plan
GWP	global warming potential
HCP	habitat conservation plan
HFC	Hydrofluorocarbon
HMBP	Hazardous Materials Business Plan
in/sec	inches per second
IPaC	Information, Planning, and Consultation
IS	initial study
kWh	kilowatt-hours
LAFCO	Local Agency Formation Commission
LBP	lead-based paint
LCFS	Low Carbon Fuel Standard
L _{dn}	day-night noise level
LED	light-emitting diode
L _{eq}	energy-equivalent average noise level
L _{max}	maximum noise level
LOS	level of service
LRA	local responsibility area
LUST	leaking underground storage tank
MBARD	Monterey Bay Air Resources District

Acronym/Abbreviation	Definition
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendant
MM	Mitigation Measure
MT	metric ton
MPO	Metropolitan Planning Organization
MND	mitigated negative declaration
MRZ	Mineral Resource Zone
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
mya	million years ago
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCAB	North Central Coast Air Basin
NCCP	natural community conservation plan
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NHMLA	Natural History Museum of Los Angeles County
NIST	National Institute of Standards and Technology
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRC	noise reduction coefficient
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
O ₃	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
Pb	lead
PCB	polychlorinated biphenyl
PFC	perfluorocarbon
PG&E	Pacific Gas and Electric Company
PM _{2.5}	fine particulate matter
PM ₁₀	coarse particulate matter
PPV	peak particle velocity
Project	Grace Way Well Project
RCNM	Roadway Construction Noise Model
RMS	root-mean-square
ROG	reactive organic gas
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCCEH	Santa Cruz County Environmental Health

Acronym/Abbreviation	Definition
SEL	sound exposure level
SF ₆	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SLMs	sound level meters
SLVWD	San Lorenzo Valley Water District
SMARA	Surface Mining and Reclamation Act
SMGWA	Santa Margarita Groundwater Agency
SO ₂	sulfur dioxide
SO _x	sulfur oxides
SRA	state responsibility area
STC	sound transmission class
SVP	Society of Vertebrate Paleontology
SVWD	Scotts Valley Water District
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TMDL	Total Maximum Daily Load
TPZ	timber production zone
TL	transmission loss
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
VdB	vibration decibels
VFD	variable frequency drive
VMT	vehicle miles traveled
WY	water year

1 Introduction

1.1 Project Overview

The Scotts Valley Water District (SVWD) proposes to construct and operate one new groundwater extraction well on SVWD-owned property comprising a single parcel (Assessor's Parcel Number [APN] 022-031-13) at 5297 Scotts Valley Drive, Scotts Valley, California. The well would be 1,000 feet deep into the Lompico and Butano aquifers of the Santa Margarita Groundwater Basin. The primary purpose of the Project is to provide redundancy and allow for increased extraction capacity to meet SVWD customer water demand as older wells reach the end of their useful life and are taken out of service, as well as strengthen the SVWD's ability to meet potential demand to deliver water to neighboring agencies under drought or emergency conditions in support of regional water supply planning efforts. Additionally, the Project would provide drought resiliency by enabling the SVWD to shift groundwater pumping away from areas where the greatest Lompico aquifer groundwater level declines have historically occurred in south Scotts Valley.

1.2 California Environmental Quality Act Compliance

The California Environmental Quality Act (CEQA) (California Public Resources Code Section 21000 et seq.) serves as the main framework of environmental law and policy in California. There are also regulations implementing CEQA, known as the CEQA Guidelines (14 California Code of Regulations [CCR] Section 15000 et seq.). CEQA emphasizes the need for public disclosure and identifying and preventing environmental damage associated with proposed projects. Unless a proposed project is deemed statutorily or categorically exempt or is subject to the so-called "common sense" exemption, CEQA is applicable to any project that must be approved by a public agency in order to be processed and established. The Project does not fall under any of these exemptions and, therefore, must meet CEQA requirements.

The SVWD is the lead agency pursuant to CEQA and is responsible for preparing, considering, and as appropriate, adopting the CEQA document for the Project. The SVWD has determined that a mitigated negative declaration (MND) is the appropriate environmental document to be prepared for the Project in compliance with CEQA. This finding is based on the Initial Study Checklist (Chapter 3 of this document). Per the CEQA Guidelines, a MND may be prepared for a project subject to CEQA if an initial study (IS) has identified potentially significant effects on the environment, but (1) revisions in the project plans or proposals made by, or agreed to by, the project proponent before the proposed MND and IS are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur; and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment (California Public Resources Code Section 21064.5).

This IS/MND has been prepared by the SVWD as the lead agency and in conformance with Section 15070 of the CEQA Guidelines. The purpose of the IS/MND is to determine the potential significant impacts associated with the implementation of the Project, and to incorporate mitigation measures, as necessary, to reduce or eliminate the significant or potentially significant effects of the Project.

In addition to lead agencies, responsible and trustee agencies have roles in the environmental review process. A responsible agency under CEQA is a state, regional, or local public agency other than the CEQA lead agency

that has discretionary approval over at least some portion of a project. A CEQA responsible agency's obligations are more limited than those of the lead agency, in that the responsible agency is responsible for considering only the effects of those project activities it is required by law to carry out or approve. A CEQA trustee agency is a state agency that has jurisdiction by law over natural resources affected by a project that are held in trust for the people of California.

This IS/MND is intended to be used by responsible and trustee agencies that may have an interest in reviewing the Project. At the time of the IS/MND's publication, the SVWD does not believe permits or authorizations required from other agencies or individuals would require such agencies' or individuals' need to comply with CEQA.

1.3 Public Review Process

In reviewing the IS/MND, affected public agencies and the interested public are encouraged to focus on the sufficiency of the identification, analysis, and mitigation of possible impacts on the environment in the document.

The SVWD has issued a Notice of Intent (NOI) to Adopt a MND for the Project. Comments may be made on the IS/MND in writing before the end of the public review period. A 30-day review and comment period from Monday, November 20, 2023, to Wednesday, December 20, 2023, has been established in accordance with CEQA Guidelines Section 15072(a). Following the close of the public comment period, the SVWD will consider this IS/MND and any public comments received during the public review period in determining whether to adopt the MND, adopt the Mitigation Monitoring and Reporting Program (MMRP), and approve the Project design and construction bid package for the Project.

Written comments on the IS/MND must be received by 5:00 p.m. on Wednesday, December 20, 2023. All written comments should be sent by email or mail to the contact listed below. Please include a return address and contact name:

David McNair
General Manager
Scotts Valley Water District
2 Civic Center Drive
Scotts Valley, California 95066
dmcnair@svwd.org

2 Project Description

This chapter provides a description of the proposed Grace Way Well Project (Project), and includes information about the overview and purpose, background, location and setting, components, construction, operations and maintenance, and required project approvals.

2.1 Overview and Purpose

The SVWD proposes to construct and operate one new groundwater extraction well on SVWD-owned property comprising a single parcel (Assessor's Parcel Number [APN] 022-031-13) at 5297 Scotts Valley Drive, Scotts Valley, California. The well would be 1,000 feet deep into the Lompico and Butano aquifers of the Santa Margarita Groundwater Basin. The primary purpose of the Project is to provide redundancy and allow for increased extraction capacity to meet SVWD customer water demand as older wells reach the end of their useful life and are taken out of service, as well as strengthen the SVWD's ability to meet potential demand to deliver water to neighboring agencies under drought or emergency conditions in support of regional water supply planning efforts. Additionally, the Project would provide drought resiliency by enabling the SVWD to shift groundwater pumping away from areas where the greatest Lompico aquifer groundwater level declines have historically occurred in south Scotts Valley.

2.2 Background

The SVWD provides water service to a population of 11,800 through approximately 4,330 connections covering most of the incorporated area of the City of Scotts Valley (City) and some unincorporated areas north of the City, encompassing an area of approximately 6 square miles (Santa Cruz LAFCO 2021c). For its potable water supply, the SVWD relies solely on groundwater from the Santa Margarita Groundwater Basin, which it extracts from six groundwater wells with a maximum extraction capacity of 1,400 gallons per minute (gpm) that vary from 250 feet to 1,750 feet deep (Santa Cruz LAFCO 2021c; SVWD 2023). Three water treatment plants with a combined capacity of nearly 2.06 million gallons per day treat the groundwater to meet federal and state potable water quality standards (SVWD 2023).

The SVWD shares the Santa Margarita Groundwater Basin with the neighboring San Lorenzo Valley Water District (SLVWD) and Mount Hermon Association, as well as local businesses and residents using private wells. Rainfall is the main source of natural recharge for the Basin. Drought is an ever-present challenge in the Project area because the water purveyors are reliant solely on local precipitation, local surface water storage, and local groundwater storage. Since imported water supplies are not available in the region, multi-year dry periods can quickly escalate into emergencies for the region when supplies are insufficient to meet demands.

The Santa margarita Groundwater Basin is a triangularly shaped basin generally bounded by the Zayante Fault on the northeast and the Ben Lomond Fault on the southwest. The Santa Cruz Purisima Formation, a granitic outcrop, and the Locatelli Formation generally delineate the southeastern boundary. The Santa Margarita, Lompico, and Butano Sandstones are the principal aquifers that supply groundwater in the Basin (DWR 2016; SMGWA 2021, 2023). Geographically, the Basin is generally bounded by the City of Scotts Valley and State Highway 17 on the east; the unincorporated communities of Felton, Mount Hermon, Ben Lomond, Brookdale, and Boulder Creek and State Highway 9 on the west; and the unincorporated communities of Lompico and Zayante on the north.

The decline of groundwater levels in many parts of the Santa Margarita Groundwater Basin occurred during 1985-2004, representing a loss in groundwater storage in the Basin by an estimated 28,000 acre-feet. The SVWD began actively managing groundwater in the area in the early 1980s, developed the Water Resources Management Plan in 1983 to monitor and manage water resources, and adopted a Groundwater Management Plan in 1994. The main goal of the Groundwater Management Plan is to better manage the aquifers providing the community's drinking water through the management of quantity and quality of the groundwater supply. With conservation and other management efforts by local water agencies, the total pumping from the Basin has decreased by 45% since 1997. For the last 10 years, the demand and supply in the Basin have been in balance (SVWD 2023).

Along with the SLVWD and other agencies, the SVWD also participated in the Santa Margarita Groundwater Basin Advisory Committee that was actively involved in the cooperative groundwater management of the Basin until its dissolution and substitution with the Santa Margarita Groundwater Agency (SMGWA) in 2017. Pursuant to the requirements of California's Sustainable Groundwater Management Act (SGMA), enacted in September 2014, the SMGWA's Groundwater Sustainability Plan (GSP) was adopted in 2021 and includes four key basin management goals: (1) Provide a safe and reliable groundwater supply that meets the current and future needs of beneficial users; (2) Support groundwater sustainability measures which enhance groundwater supply in the Basin, utilizing integrated water management principles; (3) Provide for operational flexibility within the Basin through a drought reserve that considers future climate change; and (4) Oversee planning and implementation of cost-effective projects and activities to achieve sustainability (SMGWA 2021).

2.3 Project Location and Setting

The proposed Project is located within the City of Scotts Valley, which is situated in northern Santa Cruz County on the upland slope of the Santa Cruz Mountains, approximately 5 miles inland from the Monterey Bay. The City is approximately 3 miles north of the City of Santa Cruz, 20 miles southwest of the City of San Jose, and 50 miles southeast of the City of San Francisco. The Project site encompasses one approximately 0.33-acre parcel at 5297 Scotts Valley Drive (APN 022-031-13), as well as some surrounding area to allow for construction of utility connections encompassing a total of approximately 0.5 acres. Figure 1 shows the Project site and its regional location.

The Project site has a General Plan land use designation of Service Commercial and is within the Service Commercial zoning district. The Project site is bounded by Grace Way to the northwest, Scotts Valley Drive to the southeast, and Service Commercial land uses to the northeast and southwest. Rural Residential and High-Density Residential land uses are located northwest of the Project site across Grace Way. Service Commercial land uses are located southeast of the Project site across Scotts Valley Drive.

The southwestern half of the Project site is developed with an approximately 2,000-square-foot, single-story commercial building constructed in 1964, an approximately 275-square-foot ancillary building, and an approximately 3,110-square-foot asphalt parking lot and driveway. The northwestern half of the Project site is undeveloped and consists of grass vegetation. Impervious surfaces cover approximately 8,200 square feet (58%) of the Project site.



SOURCE: ESRI 2023, County of Santa Cruz 2022

FIGURE 1
Project Location
Grace Way Well Project

2.4 Project Components

The Project would include the following new facilities: one groundwater well with a maximum extraction capacity of approximately 600 gpm; a concrete block building for pump controls; utility connections for raw water, stormwater, sewer, and electrical service; and associated site improvements. Figure 2 provides the preliminary site plan for these facilities, and also shows the worst-case disturbance boundary which would encompass the Project site and extend into the public roadway of Scotts Valley Drive for connections to existing utilities. The Project would include demolishing the existing buildings on the Project site but retaining the existing asphalt parking lot and driveway. New facilities would be located on the developed southeastern portion of the Project site, with the undeveloped northwestern portion potentially used for storage. The Project would not result in an increase in impervious surface area on the Project site over existing conditions. No tree removal would be required as there are no trees on site.

Well construction activities would meet the minimum requirements established in the California Well Standards, including California Department of Water Resources (DWR) Bulletin 74-81 (Water Well Standards: State of California) and draft supplemental Bulletin 74-90 (California Well Standards). Siting and construction of the well would comply with the California Waterworks Standards (California Code of Regulations, Title 22, Division 4, Chapter 16).

The following sections provide additional details on each of the Project components.

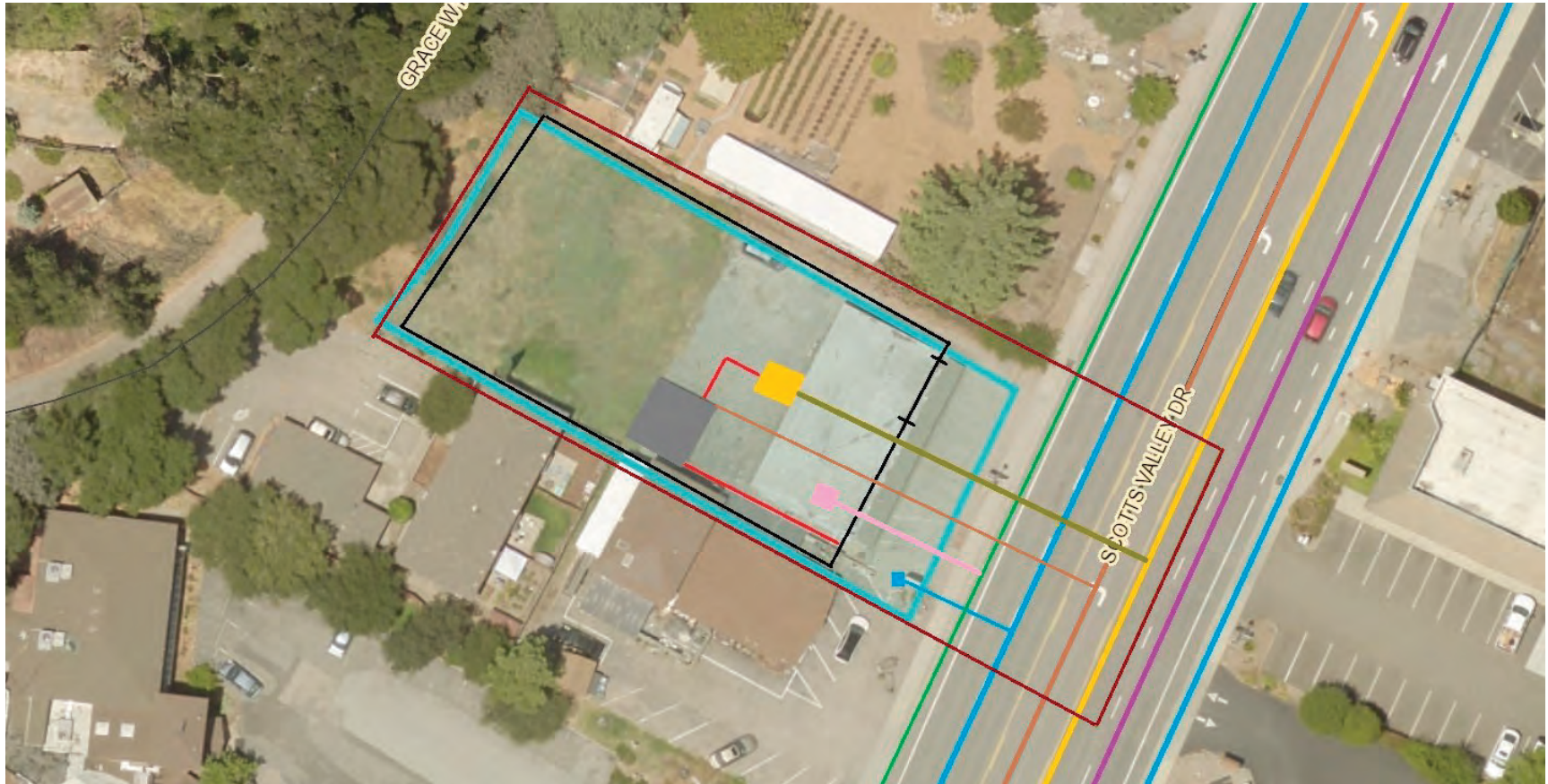
2.4.1 Groundwater Well

The groundwater well would include the following elements:

- Construction of an approximately 34-inch-diameter conductor casing to a depth of approximately 55 feet below ground surface (bgs). The conductor casing serves to both stabilize the upper formations during borehole drilling and provide the required minimum 50-foot California Division of Drinking Water sanitary seal.
- Construction of an approximately 28-inch-diameter borehole to a depth of approximately 1,000 feet bgs. A 14-inch-outer-diameter well casing assembly would extend from approximately 3 feet above ground surface to a depth of approximately 1,000 feet bgs with a well screen from approximately 500 to 980 feet bgs.
- Construction of one gravel feed tube. A graded gravel envelope would extend in the annular (ringed-shaped) space between the well casing and the borehole from approximately 450 feet to 1,000 feet bgs and a sand-cement grout annular seal would extend from approximately 450 feet bgs to the ground surface.
- Installation of an estimated 125-horsepower submersible pump in the well, supported by a concrete pedestal surrounded by a concrete pad. The well pump would use an estimated 635-kilowatt hours (kWh) per day, based on 24-hour operation at 600 gpm.

2.4.2 Pump Control Building

The pump control building would consist of a single-story, approximately 100-square-foot, concrete block building that would house the pump motor control center and associated electrical equipment and instrumentation. The well pump and motor control would be operated on a variable frequency drive (VFD) and would be controlled using local system pressure based on water demand in the SVWD system. The VFD would adjust pump speed to meet fluctuating water demands while maintaining a constant set pressure. The VFD would contain alarm indicators that would sound under conditions that may affect VFD operation or performance. Alarms would be less than 60 decibels (dB) located inside of the building, and would not be audible from outside the building.



















Existing Treated Water Main		Proposed Electrical Conduit		Disturbance Area	
Existing Raw Water Main		Proposed Pump Control Building		Parcel Boundary	
Existing Recycled Water Main		Proposed Sewer Connection			
Existing Storm Drain		Proposed Fence			
Existing Water Meter		Proposed Gate			
Existing Sanitary Sewer		Proposed Raw Water Lateral			
Proposed Production Well		Proposed Storm Drain Lateral			

FIGURE 2
Site Plan

Grace Way Well Project

The building would have ventilation cutouts to maintain the indoor temperature well below the maximum operating temperature of the VFDs. If deemed necessary to attenuate noise produced by the equipment, ventilation cutouts would be covered with acoustic louvers. In addition to ventilation cutouts, penetrations to the building would include electrical conduit from the motor controls to the wellhead. Exterior lighting at the pump control building would consist of light-emitting diode (LED), downward-directional lighting fixtures mounted above the building entrance and would be controlled by a photocell which would switch the light on at dusk and off at dawn.

Duty cycles for the well pump and motor controls would be based on water storage demand. When water is needed, a signal would turn on the well pump and motor controls and once demand is satisfied, the pump and controls would automatically shut off. This cycle could range from several times a day, to full-time operation, to non-operation, based on seasonal demand.

2.4.3 Utility Connections

The Project would be served by the existing utilities near the Project site with new service connections provided for the groundwater well facilities. The Project would not use natural gas. Electrical service would be provided by Pacific Gas & Electric Company (PG&E). Electrical conduit would be installed from the pump control building to the wellhead, and from the pump control building to the existing electrical connection near the proposed fence. A transfer switch would be installed for use of a portable backup generator to provide a temporary power source for system operation, if needed in the event of a power outage.

The pump control building would be connected to the local sanitary sewer system, which conveys wastewater to the Scotts Valley Water Reclamation Facility for treatment prior to discharge and reuse. A storm drain lateral would be installed to connect to the existing storm drain along Scotts Valley Drive. The drain would be a minimum of 18 inches in diameter, per City of Scotts Valley specifications. An 8-inch-diameter raw water lateral would be constructed to connect the wellhead to an existing raw water main running down the center of Scotts Valley Drive. The raw water pipeline would transport the pumped groundwater to the El Pueblo Water Treatment Plant at 70 El Pueblo Road, approximately 0.25 miles southeast of the Project site.

2.4.4 Other Site Improvements

Landscaping would be planted around the property frontage along Scotts Valley Drive and would include drought-tolerant vegetation consistent with the existing neighborhood. The Project would also include installation of a perimeter fence around the entirety of the Project site, as shown on Figure 2. An access gate would be located on the driveway off of Scotts Valley Drive at the northeastern corner of the site. Other security measures for the Project site, such as motion-sensing cameras, would be installed as necessary.

Existing vehicular access to the site from Scotts Valley Drive would be maintained as the permanent access for the facility and no access improvements would be required. Parking would be accommodated within existing asphalt-concrete areas present at the site.

2.5 Construction

Construction activities are planned to commence in approximately spring 2024 and would continue over the course of approximately 10 months, concluding in early 2025. Construction would occur in two phases. Construction activities would begin with mobilization and site preparation, including demolition of the existing buildings, and well

drilling and testing, lasting approximately four months. Once the well construction and groundwater quality sampling is completed, a second phase would begin to construct the aboveground facilities including well equipping, pump controls, and utility connections, lasting approximately three months. Standard construction equipment for well installation and testing would include: a drilling rig, forklift, backhoe, dump trucks, concrete delivery with pumping equipment, generator, air compressor, crane, vertical turbine well pump and engine, as well as personal vehicles or other ancillary equipment. Standard construction equipment for the aboveground facilities would include: a bulldozer, loader, excavator, forklift, dump trucks, roller/compactor, concrete delivery and pumping equipment, generator, crane, and asphalt paver.

Figure 2 shows the limits of construction disturbance, including disturbance from construction staging and laydown areas and utility connections, which encompasses approximately 0.5 acres. Construction equipment and materials staging, as well as construction worker parking, would be located on the Project site. Temporary lane closures on Scotts Valley Drive may be required during connections to existing utilities in the roadway.

To the extent feasible, construction activities would be limited to daytime hours, between 7:00 a.m. and 7:00 p.m., Monday through Friday, and between 8:00 a.m. and 6:00 p.m. on Saturdays and Sundays. However, well drilling would require a continuous 24-hour-per-day, 7-day-per-week schedule during certain aspects of the well installation process for a total of 36 days over an approximately 3-month period to avoid the risk of borehole collapse. In addition, the pilot borehole drilling, reaming, well installation, mechanical and chemical development, and constant-rate discharge testing would be completed on a 24-hour-per-day schedule for the integrity of the well or test. These 24-hour-per-day activities would be required during well drilling and construction (30 days), well development (5 days), and aquifer testing (1 day).

Before initiation of the well drilling phase, a 24-foot-tall temporary barrier would be installed around the well construction area to reduce noise, light, and dust from 24-hour-per-day well drilling activities. In addition, the SVWD would post contact information at the Project site for any noise complaints and would address noise complaints on a case-by-case basis. Temporary construction lighting would be required for 24-hour well drilling activities; lighting would be directed downwards toward the Project site and away from adjacent residences. Once the well construction is completed, the temporary barrier would be removed. Construction of the control building, utility connections, and other site improvements would not require 24-hour-per-day construction activities and therefore would not require the temporary noise barrier.

The area surrounding the proposed well site would be graded (as needed) to create a level pad for supporting a drill rig and other equipment. Well drilling would occur over approximately 3 months using the reverse rotary drilling method. Reverse rotary drilling involves sending fluid (i.e., drilling mud mixed with water) down the annular space between the drillpipe and the borehole. The fluid reenters the drillpipe with cuttings entrained, removing cuttings back up the drillpipe and into a settling pit. As drilling continues, the excavated material is replaced with fluid. Drill fluid would be contained and removed as necessary during the course of the work and disposed of at a facility licensed to handle non-toxic and non-hazardous liquid waste using a qualified vacuum truck. There would be no discharge of well installation materials or fluids generated during construction of the well into any storm drain.

Development of the well would begin after the drilling is completed and the annular seal has set for an adequate amount of time. Groundwater generated during initial development would be diverted to the on-site sanitary sewer connection and discharged in accordance with a sewer discharge permit from the City of Scotts Valley. Various well pumping tests would be performed after final well development. These tests would include a step-rate discharge test where the discharge rate would be increased through a sequence of pumping intervals, and, after groundwater levels in the new well stabilize, a constant-rate discharge test where continuous pumping would occur for 24 hours

at the design capacity of 600 gpm or at a rate determined by the step-rate discharge test. A groundwater sample would be collected and delivered to a California-certified laboratory under appropriate chain-of-custody to verify the water quality produced. Discharge of final development and testing groundwater would be diverted to a stormwater drain inlet on the west side of Scotts Valley Drive and just east of the northeast corner of the property. Installation and maintenance of temporary discharge piping would be required.

The Project would include installation of pipelines to connect the new well to the SVWD's raw water distribution system, and the City's stormwater and sanitary sewer systems. The Project also would require installation of new electrical conduits. Proposed pipelines and electrical conduits would be installed below ground using standard open-trench construction methods. Open-trench construction would involve the following steps: pavement cutting, trench excavation and shoring to stabilize the sides of the trench, if necessary, pipeline or conduit installation, trench backfilling and compacting, and surface restoration. The required pipeline and conduit trenches would be excavated up to a depth of approximately 4 feet and 2 feet, respectively. During installation, open trenches within roadways would be covered at the end of each workday with steel plates or similar materials to accommodate vehicle access during non-work hours. Soil excavated during well facility construction and pipeline installation may be used as backfill around the facilities or may be hauled off-site for recycling or disposal.

The SVWD operates under the Statewide National Pollutant Discharge Elimination System (NPDES) Permit for Drinking Water System Discharges to Waters of the United States (Order WQ 2014-0194-DWQ, General Order No. CAG140001) issued by the State Water Resources Control Board (SWRCB). The NPDES Permit allows the SVWD to discharge water into regional stormwater systems pursuant to Section 402 of the federal Clean Water Act (NPDES Permit) and Article 4, Chapter 4, Division 7 of the California Water Code (Waste Discharge Requirements). All water discharged to the storm drain would comply with the NPDES Permit requirements.

2.6 Operation and Maintenance

Operation and maintenance of the new well would be consistent with ongoing SVWD groundwater well operations. The proposed groundwater production well would be operated on an as-needed basis. The proposed well could be operated continuously or for shorter intervals, depending on the demand for water. For the purposes of evaluation, the proposed well facility would pump approximately 270 to 313 acre-feet per year (88 to 102 million gallons per year).

Ongoing project operation and maintenance would generate approximately five weekly trips to the project site by SVWD staff; however, no new SVWD employees would be required. Routine operation and maintenance would entail regular activities and procedures to ensure the proper functioning, longevity, and safety of the well system, such as visual inspections of the wellhead, casing, pump, and associated equipment; water quality testing; and pump maintenance, including checking pump performance, lubricating parts, inspecting electrical connections, and replacing worn-out components as necessary. General site maintenance, including landscaping and vegetation control, would occur on a weekly or bi-monthly basis, depending on the season. Regular and routine maintenance activities would not include any ground-disturbing activities. Maintenance vehicles would park on the Project site.

The SVWD would routinely exercise the well, when not in regular use, to ensure that the facilities are maintained and remain operational. This would entail pumping water out of the well at a high rate to remove sediment, debris, and accumulated minerals to improve the flow of water into the well. Well exercising would be anticipated to occur either weekly or monthly. The well would be exercised for one hour per week or for a single, four-hour period monthly. Operators may fine-tune the exercise schedule according to the characteristics of the well. Groundwater pumped during exercising would be discharged to the adjacent stormwater system per the SVWD's NPDES Permit.

Project operation would also include the following standard operational practice.

Operation of the extractions anticipated by the Project will be consistent with sustainable management criteria developed by the SMGWA, including ensuring undesirable results identified in the DWR-approved Santa Margarita Groundwater Basin GSP and in any future revisions to the GSP do not occur. To avoid any undesirable results in the Santa Margarita Groundwater Basin and to maintain groundwater basin sustainability, minimum threshold groundwater elevations identified in the GSP at representative monitoring points close to the Project cannot be exceeded during operation of the Project. If groundwater elevations approach minimum thresholds in representative monitoring points close to the Project, the SVWD would need to redistribute pumping amongst its other wells or implement conjunctive use or managed recharge projects.

2.7 Project Approvals

The following discretionary approvals would be required for implementation of the Project:

- SVWD: Adoption of the IS/MND and approval of Project design and construction bid package for the Project.
- City of Scotts Valley: Approval of encroachment permits and traffic control plans for work in public roadways.
- SWRCB Division of Drinking Water: Application for an amended domestic water supply permit must be made as required by California Health and Safety Code, Division 104, Part 12, Chapter 4 (California Safe Drinking Water Act), Section 116550. In addition, a Water Supply Permit Environmental Intake form must be completed and include all CEQA documentation, well drilling technical specifications, well plot plans, Well Driller's Report and copy of Santa Cruz County well drilling permit, well data sheet, Drinking Water Source Assessment Program (DWSAP) documentation, well capacity test report, and initial Title 22 water quality results.

Although the Project is located within the City of Scotts Valley, the SVWD is not required to obtain building or grading permits from the City of Scotts Valley, pursuant to California Government Code Sections 53091(d) and (c), which provide that facilities for the production, generation, storage, treatment, or transmission of water supplies are exempt from local zoning and building ordinances.

INTENTIONALLY LEFT BLANK

3 Initial Study Checklist

1. Project title:

Grace Way Well Project

2. Lead agency name and address:

Scotts Valley Water District
2 Civic Center Drive
Scotts Valley, California 95066

3. Contact person and phone number:

David McNair, General Manager
(831) 600-1902

4. Project location:

5297 Scotts Valley Drive, Scotts Valley, California (APN 022-031-13)

5. Project sponsor's name and address:

Scotts Valley Water District
2 Civic Center Drive
Scotts Valley, California 95066

6. General plan designation:

Service Commercial

7. Zoning:

Service Commercial

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 SVWD proposes to construct and operate one new groundwater extraction well and associated site improvements on SVWD-owned property comprising a single parcel (APN 022-031-13) at 5297 Scotts Valley Drive, Scotts Valley, California. The well would be 1,000 feet deep into the Lompico and Butano aquifers of the Santa Margarita Groundwater Basin. The primary purpose of the Project is to provide redundancy and allow for increased extraction capacity to meet SVWD customer water demand as older wells reach the end of their useful life and are taken out of service, as well as strengthen the SVWD's ability to meet potential demand to deliver water to neighboring agencies under drought or emergency conditions in support of regional water supply planning efforts. Additionally, the Project would provide drought

resiliency by enabling the SVWD to shift groundwater pumping away from areas where the greatest historical Lompico aquifer groundwater level declines have occurred in south Scotts Valley. See Chapter 2, Project Description, for further details.

9. Surrounding land uses and setting: Briefly describe the project’s surroundings:

The Project site is bounded by Grace Way to the northwest, Scotts Valley Drive to the southeast, and Service Commercial land uses to the northeast and southwest. Rural Residential and High-Density Residential land uses are located northwest of the Project site across Grace Way. Service Commercial land uses are located southeast of the Project site across Scotts Valley Drive.

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

City of Scotts Valley, County of Santa Cruz, and SWRCB Division of Drinking Water – Monterey District

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

No

Environmental Factors Potentially Affected

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

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

Determination (To 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Dan McNair

Signature

General Manager 11-14-23

Date

Evaluation of Environmental Impacts

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

3.1 Aesthetics

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
I. AESTHETICS – Except as provided in Public Resources Code 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"/>
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"/>
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?	<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"/>

Setting

The City is characterized by concentrated urbanization in the generally flat valleys along Carbonera Creek and its tributaries, surrounded by adjacent hillsides and largely undeveloped forested ridgetops. The Scotts Valley General Plan identifies prominent forested ridges and important vistas that are attractive focal points for scenic views. Vistas are the major places where stationary or momentary views are available because of the topography and existence of public spaces such as roads. Prominent ridges parallel Highway 17 on the east and Scotts Valley Drive on the west, surround the City limits north and west of Glenwood Drive, and follow the Bean Creek/Zayante Creek divide in the southwestern part of the City. Important vistas are available from higher vantage points toward the ridges, or toward the broad sweep of the valley below, and are located in the southern part of the City on Highway 17, Mount Hermon Road, Scotts Valley Drive, and Whispering Pines Drive, and in the northern part of the City near the Glenwood Open Space Preserve (City of Scotts Valley 1994a).

Scenic road corridors in the City include those with dense vegetation and absence of development, including winding roads through steep redwood-forested canyons. The Scotts Valley General Plan identifies portions of Bean Creek Road, Glen Canyon Road, Glenwood Drive, Granite Creek Road, Green Hills Road, La Madrona Drive, Lockwood Lane, and Vine Hill Road as being located within scenic road corridors. In the unincorporated areas, the County of Santa Cruz has designated Highway 17, Graham Hill Road, and Mount Hermon Road as scenic roads worthy of viewshed protection (County of Santa Cruz 2020). Highway 17 is also eligible as a State Scenic Highway, though not officially designated (Caltrans 2020).

A) *Would the project have a substantial adverse effect on a scenic vista?*

Less-than-Significant Impact. No important vistas mapped in the Scotts Valley General Plan are located near the Project site, or oriented toward the Project site. Approximately 0.25 miles beyond the Project site to the west, a densely forested ridgeline, mapped as a prominent ridge in the Scotts Valley General Plan, forms a scenic backdrop. Development on the Project site would be situated below the ridgeline and would not affect long-range views of the ridgeline beyond the developed commercial area. Therefore, the Project would have a less-than-significant impact on scenic vistas.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

No Impact. California's State Scenic Highway Program was created by the Legislature in 1963 to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. As described above, no officially designated State Scenic Highways are located in the Project area. Highway 17 is an eligible State Scenic Highway and is located approximately 0.25 miles east of the Project site. The Project site is not visible from Highway 17 due to dense vegetation, nor is it visible from any City-designated scenic road corridors or County-designated scenic roads. Furthermore, the Project would have no effect on trees, rock outcroppings, or historic buildings. Therefore, no impact related to damage of scenic resources within a scenic highway would occur.

c) *In non-urbanized areas, would the project 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?*

Less-than-Significant Impact. Pursuant to Public Resources Code Section 21071, an "urbanized area" is defined as an incorporated city with at least 100,000 persons. Given that the population of the City is well below this population level, the Project site is considered to be located in a "non-urbanized area" for the purposes of this analysis. Nonetheless, the Project is exempt from local zoning and building ordinances as a facility for the production, generation, and transmission of water supplies pursuant to California Government Code Sections 53091(d) and (c); therefore, it would not conflict with applicable zoning and other regulations governing scenic quality.

Public views of the Project site are available from Scotts Valley Drive looking toward the west and from Grace Way looking toward the east. Viewers would consist primarily of motorists and pedestrians traveling on Scotts Valley Drive and Grace Way, and visitors to surrounding commercial buildings, who would generally view the site for a short duration. The area immediately surrounding the Project site is characterized by primarily commercial development with residential development to the northwest. The Project would replace the existing commercial use on the Project site with public infrastructure in the form of a groundwater well and associated facilities. While the Project would result in a change in use of the site, it would result in a neutral change in visual character and quality, as the site would still contain a single-story building and would appear generally consistent with surrounding development. As discussed above, approximately 0.25 miles beyond the Project site to the west, a densely forested ridgeline, mapped as a prominent ridge in the Scotts Valley General Plan, forms a scenic backdrop. Development on the Project site would be situated below the ridgeline and would not affect long-range views of the ridgeline beyond the developed commercial area. Therefore, the Project would have a less-than-significant impact on the visual character and quality of public views of the site and its surroundings.

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

Less-than-Significant Impact. The Project would require the use of lighting during construction and operation. Typical construction activities occurring during daytime hours would not require the use of lighting. However, construction lighting may be necessary during the early morning hours in the late fall and early winter months, and nighttime construction lighting would be required during the 24-hour well drilling activities. As described in Section 2.5, Construction, a 24-foot-tall temporary barrier would be installed around the well construction area before initiation of well drilling, and all construction lighting would be directed downward and away from adjacent residences. Given the shielding provided by the temporary barrier, downward-directional lighting, orientation away from sensitive receptors, and temporary duration of construction activities, no direct beam illumination would occur outside of the Project site boundary.

Once operational, the Project would include limited exterior security lighting consisting of LED lighting mounted above the entrance to the pump control building. This would appear similar to other existing nighttime security lighting at adjacent commercial land uses surrounding the Project site. As described in Section 2.4.2, Pump Control Building, this lighting would be directed downward so that it would only illuminate the building entrance to prevent light pollution on surrounding residences and the night sky. The lighting would be controlled by a photocell that measures available daylight to minimize unnecessary lighting and would switch the light on at dusk and off at dawn. Therefore, the Project would have a less-than-significant impact related to creation of a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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) prepared by the California Dept. 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"/>
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"/>

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>
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"/>

Setting

The California Department of Conservation’s Farmland Mapping and Monitoring Program (FMMP) produces maps and statistical data used for analyzing impacts on California’s agricultural resources. Agricultural land is rated according to soil quality and irrigation status. The maps are updated every two years with the use of a computer mapping system, aerial imagery, public review, and field reconnaissance. According to maps prepared pursuant to the FMMP, neither the City of Scotts Valley nor the Project site contains any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (DOC 2023).

The City of Scotts Valley, including the Project site, does not contain agricultural zoning (City of Scotts Valley 2023) or lands enrolled in Williamson Act contracts (DOC 2022). No land in the City, including the Project site, is zoned for forest land or timberland (City of Scotts Valley 2023). The Scotts Valley General Plan identifies two timber production zones (TPZs), located just outside of the City limits to the northwest and the southeast (City of Scotts Valley 1994a).

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

No Impact. As indicated above, neither the City of Scotts Valley nor the Project site contains any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on maps prepared pursuant to the FMMP. The FMMP designates the Project site and surrounding area as Urban and Built-Up Land (DOC 2023). Therefore, the Project would have no impact on Farmland.

b) *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

No Impact. As indicated above, the City of Scotts Valley, including the Project site, does not contain agricultural zoning (City of Scotts Valley 2023) or lands enrolled in Williamson Act contracts (DOC 2022).

Therefore, the Project would have no impact related to conflicts with existing zoning for agricultural use or a Williamson Act contract.

- c) **Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?**

No Impact. As indicated above, no land in the City of Scotts Valley, including the Project site, is zoned for forest land or timberland (City of Scotts Valley 2023). The Scotts Valley General Plan identifies two timber production zones (TPZs), located just outside of the City limits to the northwest and the southeast, which are not located near the Project site (City of Scotts Valley 1994a). Therefore, the Project would have no impact related to conflicts with existing zoning for forest land, timberland, or timberland zoned Timberland Production.

- D) **Would the project result in the loss of forest land or conversion of forest land to non-forest use?**

No Impact. As described above, no forest land is located on or near the Project site. Therefore, the Project would have no impact related to the loss or conversion of forest land.

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

No Impact. As previously discussed, no Farmland or forest land is located on or near the Project site. Therefore, the Project would have no impact related to conversion of Farmland or forest land.

3.3 Air Quality

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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 upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

Setting

Air Quality Standards and Attainment

The Project site is in the North Central Coast Air Basin (NCCAB) under the jurisdiction of the Monterey Bay Air Resources District (MBARD). As the local air quality management agency, the MBARD is required to monitor air pollutant levels to ensure that the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the NCCAB is designated as being in “attainment” or “nonattainment.” The NCCAB is designated as in attainment for all NAAQS including ozone (O₃), coarse particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), and sulfur dioxide (SO₂). The NCCAB is designated as in attainment or unclassified for all CAAQS except for PM₁₀, for which it is designated as nonattainment.¹

Air Pollutant Emissions Thresholds

Criteria Air Pollutants

The MBARD has established thresholds of significance for criteria air pollutants of concern for construction and operations (MBARD 2008). For construction, the threshold is 82 pounds per day of PM₁₀. Construction projects using typical construction equipment such as dump trucks, scrapers, bulldozers, compactors and front-end loaders that temporarily emit other air pollutants, such as precursors of O₃ (i.e., ROG and NO_x), are accommodated in the emission inventories of state- and federally required air plans and would not have a significant impact on the ambient air quality standards (MBARD 2008). For operations, the thresholds are 137 pounds per day for ROG or NO_x, 550 pounds per day of CO, 150 pounds per day of sulfur oxides (SO_x), and 82 pounds per day of PM₁₀ from on-site sources. For the purposes of this analysis, the Project would result in a significant impact if construction or operational emissions from the Project would exceed the MBARD thresholds.

Air Quality Management Plan Consistency and Cumulative Impacts

Consistency with the AQMP is used by MBARD to determine a project’s cumulative impact on regional air quality (i.e., O₃ levels). Projects which are not consistent with the AQMP have not been accommodated in the AQMP and will have a significant cumulative impact on regional air quality unless emissions are totally offset (MBARD 2008). For localized impacts of the Project (i.e., PM₁₀), the threshold for cumulative impacts is the same as that noted above (82 pounds per day of PM₁₀) for the project-level analysis because air quality impacts are cumulative in nature.

Carbon Monoxide Hotspots

For localized CO, the MBARD does not have screening levels for intersection traffic that could result in potential CO hotspots; however, other air districts have established screening levels, which are described below to provide context on the magnitude of hourly volumes that could result in significant localized CO:

¹ In 2020, MBARD was redesignated to attainment for the CAAQS O₃ standard.

- The South Coast Air Quality Management District (SCAQMD) conducted CO modeling for its 2003 Air Quality Management Plan (SCAQMD 2003) for the four worst-case intersections in the South Coast Air Basin. At the time the 2003 AQMP was prepared, the intersection of Wilshire Boulevard and Veteran Avenue was the most congested intersection in Los Angeles County, with an average daily traffic volume of approximately 100,000 vehicles per day. Using CO emission factors for 2002, the peak modeled CO 1-hour concentration was estimated to be 4.6 ppm at the intersection of Wilshire Boulevard and Veteran Avenue. Accordingly, CO concentrations at congested intersections would not exceed the 1-hour or 8-hour CO CAAQS unless projected daily traffic would be at least more than 100,000 vehicles per day.
- The Bay Area Air Quality Management District (BAAQMD) determined that projects would result in a less-than-significant impact to localized CO concentrations if (1) project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour, or (2) project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway) (BAAQMD 2022).

The BAAQMD screening criterion of 24,000 vehicles per hour has been applied to this project as a metric to evaluate CO hotspots, since it is the most conservative of the screening volumes.

Toxic Air Contaminants

Toxic air contaminants (TACs) are defined by California law as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The MBARD recommends an incremental cancer risk threshold of 10 in 1 million. “Incremental cancer risk” is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard Office of Environmental Health Hazard Assessment risk-assessment methodology. In addition, some TACs have noncarcinogenic effects. The MBARD recommends a Hazard Index of 1 or more for acute (short-term) and chronic (long-term) effects.²

Analytical Methods

Air pollutant emissions generated by Project construction and operation were estimated using the California Emissions Estimator Model (CalEEMod) Version 2022.1.³ CalEEMod uses project-specific information to model a project’s construction and operational emissions. CalEEMod input parameters, including the Project land use type and size and construction schedule, were based on information provided by the SVWD, or default model assumptions if Project specifics were unavailable. Appendix A contains the detailed CalEEMod report. Additional information on how impacts were analyzed is provided below.

² Non-cancer adverse health risks are measured against a hazard index, which is defined as the ratio of the predicted incremental exposure concentrations of the various noncarcinogens from the Proposed Project to published reference exposure levels that can cause adverse health effects.

³ CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with the construction and operational activities from a variety of land use projects, such as residential, commercial, and industrial facilities.

Construction

Construction emissions modeled include emissions generated by construction equipment use on site and emissions generated by vehicle trips associated with construction, such as worker and vendor trips. CalEEMod estimates construction emissions by multiplying the amount of time equipment is in use by emission factors. Construction was modeled beginning in March 2024 and concluding in January 2025,⁴ based on the following phases and approximate durations:

- Mobilization: March 2024 (5 workdays)
- Demolition: April – May 2024 (30 workdays)
- Site preparation: June 2024 (10 workdays)
- Grading: July 2024 (5 workdays)
- Well drilling: August – September 2024 (36 workdays)
- Additional haul trucks for concrete and drill fluids: September 2024 (6 workdays)
- Well development and testing: October 2024 (6 workdays)
- Conduit and pipeline connections: October 2024 (15 workdays)
- Paving: November 2024 (10 workdays)
- Building construction: November 2024 – January 2025 (35 workdays)
- Demobilization: January 2025 (5 workdays)

Additional modeling assumptions included the following:

- Approximately 2,275 square feet of existing buildings would be demolished.
- 85 cubic yards of concrete would be required for the Project.
- Drill fluid disposal would occur within 100 miles of the Project site.
- Soils from grading and excavation of the utility trenches would be balanced on site. Spoils from well drilling may be used as backfill on site or could be hauled to a landfill (included as Additional Haul Truck phase above).
- For the analysis, it was generally assumed that heavy-duty construction equipment would be operating at the site 5 days per week and 8 hours per day, except for the well drilling and well development phases, which would occur over a 24-hour period, 7 days per week.

Construction modeling assumptions for equipment and vehicles are provided in Table 1.

⁴ The analysis assumes a construction start date of March 2024, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant and greenhouse gas emissions, because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Table 1. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment			
	Average Daily Workers	Average Daily Vendor Trucks	Average Daily Haul Trucks	Type	Horsepower	Quantity	Daily Usage Hours
Mobilization	8	2	2	Graders	148	1	8
				Tractors/loaders/backhoes	84	1	8
Demolition	8	2	2	Tractors/loaders/backhoes	84	1	5
				Skid steer	71	1	2
				Concrete/industrial saws	33	1	8
Site preparation	8	2	0	Graders	148	1	8
				Tractors/loaders/backhoes	84	1	8
Grading	8	2	0	Graders	148	1	6
				Rubber-tired dozer	367	1	6
				Tractors/loaders/backhoes	84	1	7
Well drilling	10	2	0	Bore/drill rig	83	1	24
				Forklifts	82	1	8
				Pumps	11	1	24
				Tractors/loaders/backhoes	84	1	8
				Generator sets	14	1	24
				Vertical turbine well pump and engine ¹	151	1	24
				Crane	367	1	4
				Air compressor	37	1	24
Haul trucks for concrete and drill fluids	0	4 ²	2	N/A	N/A	N/A	N/A
Well development and testing	8	2	0	Bore/drill rig	83	1	24
				Forklifts	82	1	8
				Air compressors	37	1	24
				Pumps	11	1	24
				Generator sets	14	1	24
Conduit and pipeline connections (trenching)	8	2	0	Graders	148	1	8
				Excavators	36	1	8
				Tractors/loaders/backhoes	84	2	8

Table 1. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment			
	Average Daily Workers	Average Daily Vendor Trucks	Average Daily Haul Trucks	Type	Horsepower	Quantity	Daily Usage Hours
Paving	8	2	0	Pavers	81	1	7
				Paving equipment	89	1	7
				Rollers	36	1	7
Building construction	4	2	0	Cement and mortar mixers	10	1	3
				Concrete/ industrial saws	33	1	3
				Aerial lifts	46	1	8
				Forklifts	36	1	6
				Tractors/Loaders/backhoes	84	1	8
Architectural coating	4	0	0	Air compressors	37	1	6
Demobilization	6	2	2	Forklifts	36	1	6
				Tractors/loaders/backhoes	84	1	6

Notes:

1. Modeled as “other construction equipment.”
2. Heavy-duty diesel truck fleet mix assumed.

Operation

Project operation was assumed to commence in 2025 following completion of construction. Operational emissions modeled include area, energy, mobile, and stationary sources for the Project, described as follows:

- **Area sources** include emissions from consumer products, landscape equipment, and architectural coatings. Area-source emissions were estimated based on CalEEMod default assumptions for ongoing operation of the Project.
- **Energy sources** include emissions associated with building electricity and operation of the pump station. No natural gas would be used during operation of the Project. Electricity use for the pump station would contribute indirectly to criteria air pollutant emissions; however, CalEEMod does not quantify criteria air pollutants from electricity, since criteria air pollutant emissions occur at the site of the power plant, which is typically off site; therefore, they are not included in the impact assessment below.
- **Mobile sources** include emissions from vehicular traffic because of new vehicle trips to and from the Project site. While the well is operational, a daily plant check would occur resulting in up to five weekly vehicle trips, and routine maintenance would occur on a weekly basis resulting in 1 weekly vehicle trip. For purposes of this analysis, it was conservatively assumed that the Project would require one round trip per weekday to provide the “worst-case” operational emissions (two one-way trips per weekday). The CalEEMod vehicle fleet mix was revised to reflect that the vehicle trips would occur from passenger-type vehicles (e.g., light-duty auto, light-duty trucks).

- **Stationary sources** include emissions from installations at a specific location that remain stationary during their operation. In the event of a power outage, a portable backup generator would provide a temporary source of electrical power for system operation.

a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Less-than-Significant Impact. As described in the MBARD CEQA Guidelines (2008), project emissions that are not accounted for in the AQMP's emission inventory would result in a significant cumulative impact to regional air quality. However, for construction of a project, exhaust emissions are accounted for in the AQMP emissions inventory (MBARD 2018), and therefore Project construction exhaust emissions would not result in a significant impact. Furthermore, as determined in Question 3.3b (discussed below), the Project would result in emissions during short-term construction and long-term operations that would not exceed the MBARD thresholds of significance. In addition, the Project would not generate population, housing, or employment growth not anticipated in the development of the AQMP since it would not result in an increase in staff for long-term operations. Therefore, the Project would have a less-than-significant impact related to conflicts with or obstruction of implementation of the AQMP.

b) *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Less-than-Significant Impact. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and MBARD develops and implements plans for future attainment of the NAAQS and CAAQS. As indicated above, MBARD is in attainment for all NAAQS and CAAQS with the exception of the state PM₁₀ standard (having recently achieved attainment for the state O₃ standard in 2020). MBARD considers emissions of ROG, NO_x, and PM₁₀ from an individual project that exceed the applicable emissions thresholds to be a substantial contribution to a cumulative impact on regional air quality, and projects that do not exceed the project-level thresholds may conclude that they are not cumulatively considerable. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether the Project's individual emissions would have a cumulatively considerable impact on air quality. This assessment addresses both short-term (construction) and long-term (operations) impacts and each is addressed separately below. Details of the emissions calculations are provided in Appendix A.

Construction

Construction of the Project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and ROG off-gassing) and off-site sources (vendor and haul truck trips, and worker vehicle trips). Construction emissions can vary substantially day to day, depending on the level of activity, the specific type of operation, and for fugitive dust (i.e., PM₁₀ and PM_{2.5}), the prevailing weather conditions. Table 2 summarizes the estimated maximum unmitigated daily emissions of criteria air pollutants associated with construction of the Project. As shown in Table 2, criteria air pollutant emissions associated with Project construction would not exceed MBARD's daily thresholds. Therefore, Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard.

Table 2. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	(pounds per day)					
Summer						
2024	2.82	26.66	31.04	0.06	5.91	3.08
2025	0	0	0	0	0	0
Winter						
2024	1.58	13.11	16.15	0.03	0.58	0.49
2025	4.09	3.21	4.50	0.01	0.15	0.10
Maximum Daily Emissions	4.09	26.66	31.04	0.06	5.91	3.08
<i>MBARD Threshold</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	82	<i>N/A</i>
Threshold Exceeded?	N/A	N/A	N/A	N/A	No	N/A

Notes: ROG = reactive organic gas; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; MBARD = Monterey Bay Air Resources District. See Appendix A for complete results.

Operations

Operation of the Project would result in the generation of criteria air pollutant emissions associated with mobile, area, and stationary sources. Table 3 summarizes the estimated maximum unmitigated daily emissions of criteria air pollutants associated with operation of the Project. As shown in Table 3, criteria air pollutant emissions associated with Project operation would not exceed MBARD’s significance thresholds. Therefore, Project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard.

Table 3. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Emissions Source	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	(pounds per day)					
Summer						
Mobile	<0.01	<0.01	0.06	<0.01	0.01	<0.01
Area	0.03	<0.01	0.04	<0.01	<0.01	<0.01
Stationary	0.57	1.61	1.77	<0.01	0.08	0.08
Total	0.61	1.61	1.87	<0.01	0.10	0.09
Winter						
Mobile	0.01	<0.01	0.06	<0.01	0.01	<0.01
Area	0.02	0.00	0.00	<0.01	<0.01	<0.01
Stationary	0.57	1.61	1.77	<0.01	0.08	0.08
Total	0.60	1.61	1.83	<0.01	0.10	0.09
Maximum Daily Emissions	0.61	1.61	1.87	<0.01	0.10	0.09
<i>MBARD Threshold</i>	137	137	550	150	82	<i>N/A</i>
Threshold Exceeded?	No	No	No	No	No	N/A

Notes: ROG = reactive organic gas; NO_x = nitrogen oxides; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; MBARD = Monterey Bay Air Resources District.

The values shown are the maximum summer or winter daily emissions results from CalEEMod. Columns may not add due to rounding. See Appendix A for complete results.

Conclusion

In summary, short-term construction and long-term operational activities associated with the Project would result in a minimal increase in daily criteria air pollutant emissions that would not exceed the applicable MBARD thresholds. Because the construction and operational emissions would not exceed the MBARD project-level thresholds, the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard. Therefore, the Project would have a less-than-significant impact related to criteria air pollutant emissions.

c) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Less-than-Significant Impact With Mitigation Incorporated. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. The term “sensitive receptors” is used to refer to facilities and structures where people who are sensitive to air pollution live or spend considerable amounts of time. Land uses where air-pollution-sensitive individuals are most likely to spend time include schools and schoolyards (i.e., preschools and kindergarten through grade 12 schools), parks and playgrounds, daycare centers, nursing homes, hospitals, live-in housing (i.e., prisons, dormitories, hospices, or similar), and residential communities (sensitive sites or sensitive land uses) (CARB 2005; MBARD 2008). Sensitive receptors, predominantly residential uses, are located immediately adjacent to or within proximity to the Project site.

This discussion addresses whether the Project would expose sensitive receptors to fugitive dust (PM₁₀) or TACs in the form of diesel particulate matter (DPM) during construction, and TACs or CO hotspots during operation. Each is addressed separately as follows.

Fugitive Dust

Construction of the Project would involve minimal ground disturbance and, as shown in Table 2, total estimated PM₁₀ emissions would be substantially below MBARD’s threshold of significance. Most fugitive dust would remain localized and would be deposited near the Project site; in addition, as described in Section 2.5, Construction, Project construction would include implementation of BMPs to limit erosion and fugitive dust. Accordingly, fugitive dust impacts would be less than significant.

Construction Health Risks

The primary TAC of concern related to exposure of sensitive receptors is DPM generated by construction-related vehicles and equipment. The actual risk of adverse air quality effects depends on a person’s current health status, the pollutant type and concentration, and the length of exposure to the polluted air. Health risk is a function of the concentration of contaminants in the environment and the duration of exposure to those contaminants. Health effects from TACs are often described in terms of individual cancer risk, which is based on a 30-year lifetime exposure to TACs (OEHHA 2015). While a 10-month construction schedule would represent 2% of a 30-year exposure period, there are residences located adjacent to the Project site’s western boundary. According to meteorological data from the Monterey Peninsula Airport, wind direction typically blows from the west to the east, which would disperse pollutants away from the sensitive receptors (CARB 2022a). Additionally, the Project’s PM₁₀ emissions, which may be used as a surrogate for

DPM, would be minimal (OEHHA 2015). Therefore, the exposure of residents to DPM from Project construction would be less than significant.

Operational Health Risks

The California Air Resources Board's (CARB) Air Quality and Land Use Handbook notes that air pollution studies have shown an association between respiratory and other non-cancer health effects and proximity to high-traffic roadways, and other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California (CARB 2005). CARB community health risk assessments and regulatory programs have produced important air quality information about certain types of facilities that should be considered when siting new residences, schools, day care centers, playgrounds, and medical facilities (i.e., sensitive land uses).

CARB's Air Quality and Land Use Handbook provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities). The CARB guidelines recommend siting distances both for the development of sensitive land uses in proximity to TAC sources and for the addition of new TAC sources in proximity to existing sensitive land uses. Water supply infrastructure is not considered to be a land use that generates substantial TAC emissions based on review of the air toxic sources listed in CARB's guidelines (CARB 2005).

The Project would include the use of a portable generator to provide a temporary power source for system operation, if needed in the event of a power outage, however the use of the generator would be minimal and subject to air permitting requirements, which would further minimize potential exposure. The Project would not result in substantial sources of TACs during operation, as the Project is anticipated to primarily include passenger vehicles associated with maintenance trips, and passenger vehicles are not a source of DPM emissions. Therefore, operational health risks would be less than significant.

CO Hotspots

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

Title 40 of the Code of Federal Regulations, Section 93.123(c)(5), Procedures for Determining Localized CO, PM₁₀, and PM_{2.5} Concentrations (Hot-Spot Analysis), states that "CO, PM₁₀, and PM_{2.5} hot-spot analyses are not required to consider construction-related activities, which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site" (40 CFR 93.123). While Project construction would

involve on-road vehicle trips from trucks and workers during construction, construction activities would last approximately 10 months and would not require a project-level construction hotspot analysis.

With no new employees and potentially a single passenger vehicle trip per day, the Project would generate negligible new traffic and would not exceed the 24,000-vehicle-per-hour screening criterion discussed above. Accordingly, Project-related traffic would not exceed CO standards and therefore, no further analysis was conducted for CO impacts. Therefore, the CO emissions impact of the Project would be less than significant.

Health Effects of Other Criteria Air Pollutants

As analyzed above, construction and operation of the Project would not result in emissions that would exceed any of the MBARD thresholds for criteria air pollutants (see Question 3.3b).

Health effects associated with O₃ include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2023c). ROG and NO_x are precursors to O₃. The health effects associated with O₃ are generally associated with reduced lung function. The contribution of ROG and NO_x to regional ambient O₃ concentrations is the result of complex photochemistry. The increases in O₃ concentrations in the NCCAB due to O₃ precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. The holistic effect of a single project's emissions of O₃ precursors is speculative due to the lack of reliable and meaningful quantitative methods to assess this impact. However, because the Project would not exceed MBARD thresholds for ROG or NO_x and the NCCAB is designated as in attainment with the NAAQS and CAAQS for O₃, implementation of the Project would not significantly contribute to regional O₃ concentrations or the associated health effects.

In addition to O₃, NO_x emissions contribute to potential exceedances of the NAAQS and CAAQS for NO₂ (since NO₂ is a constituent of NO_x). Health effects associated with NO_x and NO₂ include lung irritation and enhanced allergic responses (CARB 2023d). Because the Project would not generate NO_x emissions that would exceed the MBARD mass daily threshold and because the NCCAB is designated as in attainment of the NAAQS and CAAQS for NO₂ and the existing NO₂ concentrations in the area are well below the NAAQS and CAAQS standards, the Project would not contribute to exceedances of the NAAQS and CAAQS for NO₂ or result in significant health effects associated with NO₂ and NO_x.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (CARB 2023a). CO tends to be a localized impact associated with congested intersections. Impacts associated with CO hotspots were identified above as less than significant. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

Health effects associated with PM₁₀ include premature death and hospitalization, primarily for worsening of respiratory disease (CARB 2023b). Construction and operation of the Project would not exceed MBARD's PM₁₀ thresholds and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter or obstruct the NCCAB from coming into attainment for this pollutant. Regarding PM_{2.5}, the NCCAB is designated as in attainment with the NAAQS and CAAQS. Additionally, implementation of construction erosion and dust control BMPs would limit the amount of fugitive dust generated during construction. Due to the minimal contribution of particulate matter during construction and operation, the Project would not result in significant health effects associated with PM₁₀ or PM_{2.5}.

Health effects associated with SO₂ include exacerbation of asthma, respiratory irritation such as wheezing, shortness of breath and chest tightness especially during exercise or physical activity (CARB 2023e). The Project's SO₂ emissions were minimal, thus the Project would not contribute to health effects associated with this pollutant.

Based on the preceding considerations, because construction and operation of the Project would not result in the emissions of criteria air pollutants that would exceed the applicable MBARD significance thresholds, and because the MBARD thresholds are based on levels that the NCCAB can accommodate without affecting the maintenance for the NAAQS and attainment for the CAAQS, and the NAAQS and CAAQS are established to protect public health and welfare, the Project would not result in health effects associated with criteria air pollutants. Therefore, the Project would have a less-than-significant impact related to exposure of sensitive receptors to substantial pollutant concentrations.

d) *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Less-than-Significant Impact. Based on the preceding analyses, the Project is not anticipated to result in other emissions that have not been addressed under Questions 3.3a through 3.3c above. Accordingly, this analysis focuses on the potential for the Project to generate odors.

The occurrence and severity of potential odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source; the wind speed and direction; and the sensitivity of the receiving location. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

During Project construction, exhaust from equipment may produce discernible odors typical of most construction sites. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the Project site and generally occur at magnitudes that would not affect substantial numbers of people.

Typical sources of operational odors include landfills, rendering plants, chemical plants, agricultural uses, wastewater treatment plants, and refineries. MBARD's CEQA Guidelines notes that odorous materials include sulfur compounds and methane. As a groundwater well facility, the Project would not be a land use associated with generating nuisance odors. Therefore, the Project would have a less-than-significant impact related to other emissions, such as those leading to odors.

3.4 Biological Resources

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>
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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

Setting

The Project site is in an urban/commercial setting and consists primarily of paved surfaces and ruderal vegetation. The site is previously disturbed and contains mostly herbaceous weeds and non-native grasses characteristic of disturbed habitats. Large coast live oak trees are located adjacent to the northwestern border of the site. Redwood forest is present to the north and west. The site is otherwise surrounded by residential and commercial development. No natural vegetation communities are present within the Project site.

Dudek prepared a biological resources assessment for the Project (see Appendix B). Dudek conducted a search of the California Natural Diversity Database (CNDDDB), California Native Plant Society (CNPS) rare plant inventory, and federal Information, Planning, and Consultation (IpaC) System to determine whether special-status plants or wildlife species have been documented near the Project site. Dudek conducted a reconnaissance-level field survey of the biological study area (BSA) including the Project site and a 50-foot buffer on June 12, 2023. The focus of the survey was to identify existing biological resources, including vegetation and wildlife habitat values and habitat suitability for special-status plant and wildlife species, as well as to document the presence of aquatic resources or sensitive natural vegetation communities, if any. Dudek also conducted a search of Santa Cruz County's Geographic Information System (GIS) data to identify any mapped biological resources on or immediately adjacent to the site, such as Sandhills Habitat. The results of these assessments are discussed below.

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

Less-than-Significant Impact with Mitigation Incorporated. Based on the results of the database search and literature review, a total of 100 special-status species (59 plants and 41 animals) were identified as potentially occurring in the Project area. However, due to the existing developed and disturbed nature of the site and largely urbanized setting of the surrounding lands, the absence of suitable native communities and substrates that could support special-status plants, as well as the absence of mapped sensitive habitats such as Sandhills Habitat, the occurrence of special-status plant species on the site is highly unlikely. A total of 41 special-status wildlife species have potential to occur in the vicinity of the Project site. These species are not expected or have a low potential to occur on or in the vicinity of the Project site due to the absence of suitable habitat conditions, existing developed and disturbed conditions, and associated urban land uses.

No special-status plant or wildlife species were observed during the biological field surveys. Due to the absence of suitable habitat conditions and existing developed and disturbed conditions on the Project site and in the immediate vicinity of the Project site, no special-status plant or wildlife species are expected to occur.

While the Project site itself does not contain trees, trees near the Project site provide potential nesting habitat for bird species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC). As such, nesting may be occurring near the site, or may occur in the future. Project construction could result in the loss or abandonment of active nests of birds protected under the MBTA and/or the CFGC, as a result of construction-related noise and disturbance. The loss of an active bird nest protected by the MBTA and/or CFGC would be considered a potentially significant impact. Implementation of MM BIO-1 would protect active bird nests that could occur in the disturbance area and reduce the potentially significant impact to a less-than-significant level.

MM BIO-1: *Pre-Activity Surveys for Nesting Birds.* Within 14 days prior to any ground-disturbing activities or vegetation clearing during the nesting season, a qualified biologist or biological monitor shall conduct a pre-activity nesting bird survey of all potential nesting habitat within the Project site, including a 100-foot buffer for passerine species and a 300-foot buffer for raptors. If there is a lapse between the survey time and initiation of work activities of 14 days or greater, the nesting bird survey shall be repeated. If active nests are found during the survey, work in that area shall stop and a qualified biologist or biological monitor

shall determine an appropriate no-work buffer around the nest based on the activity and species and mark the buffer using flagging, pin flags, lathe stakes, or similar marking method. No work shall occur within the buffer until the young have fledged or the nest(s) are no longer active, as determined by the biologist or biological monitor.

Therefore, with incorporation of MM BIO-1, the Project would have a less-than-significant impact on special-status species.

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

and

- c) ***Would the project 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 Impact. The Project site does not contain riparian habitats, other sensitive natural communities, or wetlands, and none of these habitats are located near the site based on the field survey and review of mapped biological resources available through the Santa Cruz County GIS data. No aquatic resources were identified within the BSA during the field survey. The nearest aquatic resource, Carbonera Creek, is a federally and state-protected aquatic resource under U.S. Army Corps of Engineers (USACE) (Clean Water Act), Regional Water Quality Control Board (RWQCB) (Porter-Cologne Water Quality Control Act), and California Department of Fish and Wildlife (CDFW) (California Fish and Game Code Section 1600) jurisdiction, but is across Scotts Valley Drive and outside the Project boundary. No natural communities considered sensitive by CDFW were identified within the Project site during the field survey and based on the County's mapped biological resources. The entire site is urban and developed. Redwood forest and coast live oak woodland border the BSA, however Project work is unlikely to impact these communities. Therefore, the Project would have no impact on riparian habitats, other sensitive natural communities, or federally or state-protected wetlands.

- D) ***Would the project 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?***

No Impact. Wildlife corridors are pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, other natural obstacles, or manmade obstacles such as urbanization. As stated above, the Project site is developed, is surrounded by other development, and does not connect areas of natural open space. The Project site is not part of a wildlife movement corridor and would not impede the use of native wildlife nursery sites. Therefore, the Project would have no impact on wildlife movement or native wildlife nursery sites.

- e) ***Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

No Impact. Section 17.44.080 of the Scotts Valley Municipal Code (Tree Preservation Ordinance) restricts the removal of various mature trees, including coast live oaks and Ponderosa pine trees, with trunk

diameters of 8 inches or greater. The Project site does not contain trees or other protected biological resources and Project implementation would not require tree removal. Therefore, the Project would have no impact related to conflicts with local policies or ordinances protecting biological resources.

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

No Impact. There are no adopted Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs) applicable to the Project. Specifically, the Project site is located outside the Interim Programmatic HCP area, that does apply to some parcels near the site. Therefore, the Project would have no impact related to conflicts with the provisions of an adopted HCP or NCCP.

3.5 Cultural Resources

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

Setting

The information in this section is based on an Archaeological Resources Assessment and Historical Resources Assessment prepared for the Project, which are provided in Appendices C and D, respectively. The Archaeological Resources Assessment included a records search of the California Historical Resources Information System (CHRIS) from the Northwest Information Center (NWIC) conducted for the Project site and a 0.25-mile radius, a search of the Native American Heritage Commission (NAHC) Sacred Lands File, outreach to locally affiliated Native American groups, and an intensive pedestrian survey of the Project site. Due to the age of the building on site (constructed in 1964), it was also evaluated for potential historical significance and integrity in the Historical Resources Assessment. The results of these assessments are discussed below.

A) *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?*

No Impact. The results of the CHRIS records search indicated that no previously recorded cultural resources are within the Project site. One recorded resource, Highway 17, is outside of the Project site within the 0.25-mile study area radius. As a result of the background research, field survey, and property significance

evaluation, the building on the Project site appears not eligible for the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), California Historical Landmarks (CHL), and City of Scotts Valley Local Register of Historic Resources due to a lack of significant historical associations, architectural merit, and compromised integrity. Thus, no known historical resources are located on or adjacent to the Project site. Therefore, the Project would have no impact on historical resources.

The potential for unknown subsurface archaeological resources or tribal cultural resources also qualifying as historical resources is evaluated under Question 3.5b below.

b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?*

Less-than-Significant Impact with Mitigation Incorporated. According to the CHRIS records search, the Project area contains no previously recorded archaeological resources.⁵ Similarly, the search of the NAHC Sacred Lands File and outreach to locally affiliated Native American contacts did not identify any known Native American resources in the Project area. Intensive pedestrian survey of the Project site by a qualified archaeologist did not encounter any archaeological resources. Based on the results of the assessment, the potential for encountering previously unknown potentially significant prehistoric or historical-period archaeological resources during Project construction is low. Nevertheless, in the event that ground-disturbing construction activities were to unearth previously unidentified archaeological resources, implementation of MM CUL-1 would reduce potentially significant impacts to a less-than-significant level.

MM CUL-1: Discovery of Unique Archaeological Resources, Historical Resources of Archaeological Nature, and Subsurface Tribal Cultural Resources. If archaeological resources (sites, features, or artifacts) are exposed during construction activities for the Project, all soil-disturbing work within 100 feet of the find shall immediately stop until a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards can evaluate the significance of the find. The archaeologist will determine whether additional study is warranted. Should it be required, the archaeologist shall install temporary flagging around a resource to avoid any disturbances from construction equipment.

If the resource has potential to be a unique archaeological resource, a historical resource of an archaeological nature, or a subsurface tribal cultural resource, the qualified archaeologist, in consultation with the lead agency, shall prepare a research design and archaeological evaluation plan to assess whether the resource should be considered significant under CEQA criteria.

If the resource is determined significant, the lead agency shall provide for preservation in place. If preservation in place is not possible, the qualified archaeologist, in consultation with the lead agency, will prepare a data recovery plan for retrieving data relevant to the site's significance. The data recovery plan shall be implemented prior to, or during, site development (with a 100-foot buffer around the resource). The archaeologist shall also perform appropriate technical

⁵ Archaeological resources are objects or structures, often below ground, that relate to previous human use of an area. Archaeological resources are often distinguished by whether they are "prehistoric" or "historic." Archaeological resources can qualify as "unique archaeological resources" (Public Resources Code Section 21083.2[g]) or "historic resources" (Public Resources Code Section 5020.1[j]). Tribal cultural resources can sometimes also qualify as "unique archaeological resources" or "historical resources" (Public Resources Code Section 21074[c]).

analyses, prepare a full written report and file it with the Northwest Information Center, and provide for the permanent curation of recovered materials. The written report will provide new recommendations, which could include, but would not be limited to, archaeological and Native American monitoring for the remaining duration of Project construction.

Therefore, with incorporation of MM CUL-1, the Project would have a less-than-significant impact on archaeological resources.

c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less-than-Significant Impact with Mitigation Incorporated. As the Project site has been previously disturbed, it is unlikely that unmarked human burials exist on the site. Nevertheless, in the event that ground-disturbing construction activities were to unearth previously unidentified human remains, implementation of MM CUL-2 would reduce potentially significant impacts to a less-than-significant level.

MM CUL-2: **Human Remains.** In accordance with Section 7050.5 of the California Health and Safety Code, if potential human remains are found, immediately notify the lead agency and the Santa Cruz County Coroner of the discovery. The coroner will decide the nature of the remains within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, can occur until a determination has been made. If the County Coroner determines that the remains are, or are believed to be, of Native American ancestry, the coroner will notify the Native American Heritage Commission within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the Native American Heritage Commission will appoint a Most Likely Descendant (MLD), who will be authorized to provide recommendation to the lead agency regarding the preferred treatment of the remains and any associated objects and/or materials.

Therefore, with incorporation of MM CUL-2, the Project would have a less-than-significant impact on human remains.

3.6 Energy

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

Energy providers in the region include PG&E, which provides electrical and natural gas service to the region and Central Coast Community Energy (3CE), which provides electricity to the region. As described in Chapter 2, Project Description, the Project would not use natural gas; therefore, natural gas is not further discussed.

According to the U.S. Energy Information Administration (EIA), California used approximately 247,250 gigawatt hours of electricity in 2021 (EIA 2023c). Electricity usage in California for different land uses varies substantially by the types of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Due to the state's energy efficiency building standards and efficiency and conservation programs, California's electricity use per capita in the residential sector is lower than any other state except Hawaii (EIA 2023a). In Santa Cruz County, PG&E reported an annual electrical consumption of approximately 1,162 million kilowatt-hours (kWh) in 2021, with 581 million kWh for non-residential use and 581 million kWh for residential use (CEC 2023).

According to the EIA, California used approximately 605 million barrels of petroleum in 2021, with the majority (over 511 million barrels) used for the transportation sector (EIA 2023b). This total annual consumption equates to approximately 25.4 billion gallons of petroleum, or a daily use of approximately 1.7 million barrels (69.6 gallons⁶) of petroleum. In California, petroleum fuels refined from crude oil are the dominant source of energy for transportation sources. Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. California has implemented policies to improve vehicle efficiency and to support use of alternative transportation.

Potential impacts related to energy were analyzed based on energy consumption modeling for the Project in CalEEMod using the assumptions presented in Section 3.3, Air Quality. The results of the energy modeling are summarized in this section and included in Appendix A. Electricity demand is qualitatively addressed. Fuel consumption from equipment and vehicles was estimated by converting the total CO₂ emissions to gallons using the conversion factors for CO₂ to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton (MT) CO₂ per gallon, and the conversion factor for diesel is 10.21 kilograms per MT CO₂ per gallon (The Climate Registry 2022).

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

Less-than-Significant Impact. Project implementation would result in the consumption of energy resources during construction and operation, including use of electricity and petroleum-based fuels. The anticipated use of energy resources is detailed as follows.

Construction

Project construction would entail the use of electricity for temporary construction lighting and use of electronic equipment such as electrically powered hand tools. The amount of electricity used during construction would be temporary and minimal. Therefore, Project construction would not result in wasteful, inefficient, or unnecessary consumption of electricity.

During Project construction, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the Project site, vehicles used to deliver materials to the site, and construction worker travel to and from the Project site. Off-road equipment used during construction

⁶ One barrel contains 42 U.S. gallons.

of the Project would primarily rely on diesel fuel, as would vendor and haul trucks. In addition, construction workers would travel to and from the Project site in gasoline-powered vehicles throughout the duration of construction. Table 4 summarizes the Project’s estimated diesel fuel usage from construction equipment, haul trucks, and vendor trucks, as well as estimated gasoline fuel usage from construction worker vehicles.

Table 4. Estimated Petroleum Consumption during Project Construction

	Off-Road Equipment (diesel)	Haul Trucks (diesel)	Vendor Trucks (diesel)	Worker Vehicles (gasoline)
Year	(gallons)			
2024	12,004	476	370	415
2025	167	36	13	21
Total by Category	12,170	512	384	436
Total Petroleum Consumed for Project Construction				13,503

Notes: Numbers may not add due to rounding.
See Appendix A for complete results.

As shown in Table 4, Project construction is estimated to consume a total of approximately 13,503 gallons of petroleum. While construction activities would consume petroleum-based fuels, petroleum use during construction would be temporary in nature. Furthermore, the construction equipment used and associated petroleum consumed would be typical of construction projects of similar types and sizes and would not necessitate new petroleum resources beyond what are typically consumed in California. In addition, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and offroad diesel vehicles from idling for more than five minutes and would minimize unnecessary fuel consumption. Construction equipment would be subject to the U.S. Environmental Protection Agency (EPA) Construction Equipment Fuel Efficiency Standard, which would also minimize inefficient, wasteful, or unnecessary fuel consumption. Construction contractors would also not be expected to utilize fuel in a manner that is wasteful or unnecessary for purposes of cost efficiency. Therefore, petroleum use during Project construction would not be wasteful or inefficient.

Therefore, the Project would have a less-than-significant impact related to energy consumption during construction.

Operation

Operation of the Project would contribute to regional energy demand by consuming electricity and gasoline and diesel fuels. Electricity would be used for groundwater pumping, lighting, and water and wastewater conveyance. Gasoline and diesel consumption would be associated with vehicle trips to and from the site by SVWD staff for routine operations and maintenance activities and occasional use of the backup generator.

Based on information provided by the SVWD, Project operation would consume approximately 230,000 kilowatt-hours (kWh) of electricity per year during operation. Although electricity consumption would increase with the Project, the Project would be required to comply with CCR Title 24, Part 6, Energy Efficiency Standards for Residential and Nonresidential Buildings. These standards are intended to result in energy-efficient performance so that new buildings do not result in wasteful, inefficient, or unnecessary

consumption of energy. Thus, compliance with applicable standards would minimize energy consumption for lighting and other energy-using fixtures. Furthermore, the additional electricity demand for the Project would be comparable to other similar projects and would not be unusual or wasteful as compared to overall local and regional demand for energy resources. For these reasons, electricity consumption of the Project would not be considered inefficient or wasteful, and impacts would be less than significant.

Operational fuel consumption would involve the use of motor vehicles traveling to and from the Project site for routine operation and maintenance, and occasional use of the backup generator. Table 5 summarizes the estimated annual petroleum consumption for Project operation.

Table 5. Estimated Petroleum Consumption during Project Operation

Source	Employee Vehicles (gasoline)	Emergency Generator (diesel)	Landscape Equipment (gasoline)	Total Petroleum
	(gallons)			
Project Operations	148	653	3	805

Notes: Numbers do not add due to rounding. See Appendix A for complete results.

As shown in Table 5, the Project would result in an estimated annual increase in total petroleum demand of approximately 805 gallons of petroleum. Fuel would be provided by current and future commercial vendors. The Project does not propose uses or operations that would inherently result in excessive and wasteful activities, nor associated excess and wasteful vehicle energy consumption. Accordingly, the Project’s operational petroleum consumption would not be considered inefficient, wasteful, or otherwise unnecessary. Therefore, the Project would have a less-than-significant impact related to energy consumption during operation.

b) *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Less-than-Significant Impact. Part 6 of Title 24 of the California Code of Regulations establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically (every 3 years) to incorporate and consider new energy efficiency technologies and methodologies. Title 24 also includes Part 11, the California Green Building Standards Code (CALGreen). CALGreen institutes mandatory minimum environmental performance standards for all ground-up, new construction of commercial and state-owned buildings. The components of the Project that include new structures would meet all applicable Title 24 and CALGreen standards to reduce energy demand and increase energy efficiency.

Additionally, as discussed in Section 3.8, Greenhouse Gas Emissions, the Project would not conflict with the various state and local plans that mandate reduced energy use. Therefore, the Project would have a less-than-significant impact related to conflicts with or obstruction of a state or local plan for renewable energy or energy efficiency.

3.7 Geology and Soils

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<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"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

The City of Scotts Valley is typical of a mountain/alluvial environment. The alluvial valleys of Carbonera Creek and Camp Evers Creek form the historic and modern core of the urban area, which is bordered by mountains (City of Scotts Valley 1994a). The City, including the Project site, is located within the Coast Ranges Geomorphic Province,

which is characterized by northwest trending mountains and valleys, subparallel to the San Andreas Fault. The coastline is uplifted and strata dips underneath the Great Valley Geomorphic Province to the east (CGS 2002). The City, including the Project site, is located in a seismically active region of California with several active or potentially active faults. Earthquake faults in the area include the Zayante Fault (3 miles north), Ben Lomond Fault (3 miles west), Butano Fault (6 miles north), San Andreas Fault (7 miles north), and San Gregorio Fault (14 miles west).

Based on information obtained from the United States Department of Agriculture, Natural Resources Conservation Service Web Soil Survey online database (NRCS 2023), the Project site is mapped as Soquel loam, 2% to 9% slopes. This soil map unit consists of very deep, moderately well-drained soils on alluvial plains, with a moderately high capacity to transmit water (NRCS 2023; USDA 1980). These soils formed in alluvium derived from sedimentary rock (USDA 1980). The typical soil profile generally consists of a loam layer extending from the surface to a depth of approximately 21 inches, silt loam from a depth of approximately 21 to 37 inches, silty clay loam from a depth of approximately 37 to 51 inches, and loam from a depth of 51 to 62 inches (NRCS 2023).

a) *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

No Impact. The Alquist-Priolo Earthquake Fault Zoning Act of 1972 regulates development near Holocene-active faults (i.e., faults that have moved in the past 11,700 years) to mitigate the hazard of surface fault rupture. This Act requires the State Geologist to delineate regulatory zones (known as Alquist-Priolo Earthquake Fault Zones) around the surface traces of Holocene-active faults and to issue appropriate maps. The Project site is not located within an Alquist-Priolo Earthquake Fault Zone. The Alquist-Priolo Earthquake Fault Zone located closest to the Project site is associated with the San Andreas Fault, located approximately 7 miles to the north (CGS 2021). Therefore, the Project would have no impact related to rupture of a known earthquake fault.

ii) *Strong seismic ground shaking?*

and

iii) *Seismic-related ground failure, including liquefaction?*

Less-than-Significant Impact. As indicated above, the Project site is located in a seismically active region of California with several active or potentially active faults. Thus, the Project site is susceptible to strong ground shaking from severe earthquakes, and the Project could expose SVWD employees and Project structures and infrastructure to strong seismic ground shaking and associated seismic hazards.

Ground shaking may cause liquefaction of recent alluvial and terrace deposits. Liquefaction occurs when non-cohesive surface or subsurface materials are saturated and become liquid-like under the influence of ground shaking. This may result in ground failure. The alluvial deposits of the City have a moderately low potential for liquefaction except for younger alluvium found predominately along creeks and other watercourses; these have a moderate potential for liquefaction. According

to mapping done for the 1994 General Plan, the Project site is located in a zone with low liquefaction potential (City of Scotts Valley 1994c).

While the Project site is located in a region with inherent seismic hazards, the Project would not exacerbate the risk of seismic ground shaking or seismic-related ground failure, which already exist in the Project area. Design and construction of the Project would conform to the recommendations of a site-specific geotechnical investigation to address seismic hazards in accordance with current seismic design standards of the California Building Code (CBC) and California Division of Occupational Safety and Health (Cal/OSHA) regulations, thereby minimizing the potential for damage and safety impacts. In the event that a large seismic event were to result in damage to the facility during operation, the SVWD would temporarily shut off the facility and conduct emergency repairs as soon as feasible. Adherence to the recommendations of the geotechnical investigation, and conformance with applicable CBC standards and Cal/OSHA regulations would serve to minimize potential adverse effects related to ground shaking and secondary seismic hazards. Therefore, the Project would have a less-than-significant impact related to strong seismic ground shaking and seismic-related ground failure, including liquefaction.

iv) Landslides?

Less-than-Significant Impact. Landslides occur when masses of rock, earth material, or debris flows move down a slope due to gravity. Ground shaking can trigger landslides, particularly on slopes of 15% or greater (City of Scotts Valley 1994c). The Scotts Valley General Plan includes geologic hazard maps for slopes and landslide deposits. The topography of the Project site is relatively flat, though the area behind the Project site on Grace Way is mapped as 25% to 40% slopes in the General Plan (City of Scotts Valley 1994). Mapping of landslide deposits indicates that no areas of known or suspected landslides are located near the Project site (City of Scotts Valley 1994c). As previously discussed, the Project would be constructed in accordance with the seismic design standards and regulations of the CBC and Cal/OSHA. Therefore, the Project would have a less-than-significant impact related to landslides.

b) *Would the project result in substantial soil erosion or the loss of topsoil?*

Less-than-Significant Impact with Mitigation Incorporated. As described above, soils underlying the Project site consist of Soquel loam, 2% to 9% slopes, which is a very deep, moderately well-drained soil on alluvial plains. Well-drained soils reduce erosion rates by enhancing stormwater infiltration into on-site soils. According to the Santa Cruz County soil survey (USDA 1980), the hazard of erosion for Soquel loam, 2% to 9% slopes is slight to moderate.

Project construction would involve ground disturbance, which would potentially result in short-term soil erosion. Because the Project footprint is less than 1 acre, it would not be subject to the NPDES Construction General Permit requirements for construction site stormwater discharges. As a result, impacts related to soil erosion would be potentially significant. As discussed in Section 3.10, Hydrology and Water Quality, MM HYD-1 would reduce potential impacts associated with construction-related soil erosion by requiring implementation of stormwater pollution prevention BMPs. Therefore, with incorporation of MM HYD-1, the Project would have a less-than-significant impact related to soil erosion and loss of topsoil.

- c) ***Would the project 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?***

Less-than-Significant Impact. Moderately to well-consolidated, Miocene-age marine sedimentary rocks, including sandstone, shale, siltstone, conglomerate, and breccia, underlie the Project site (CGS 2015). Soils at the Project site consist of Soquel loam, 2% to 9% slopes (NRCS 2023). As previously discussed, geologic hazard maps in the General Plan indicate that the Project site has a low liquefaction potential, does not contain steep slopes, and is not located in area of known or suspected landslides (City of Scotts Valley 1994). Lateral spreading, which is commonly associated with liquefaction and occurs when a continuous layer of soil liquefies at depth and the soil layers above move toward an unsupported face, would also not be expected to occur due to the site's relatively flat topography and low liquefaction potential.

Subsidence and collapse involve a gradual or sudden vertical downward movement of a geological surface due to subsurface movement of earth materials to a point where the rock structure cannot bear its own load (collapse) or causing relatively slow sinking (subsidence). The main cause of subsidence in California is groundwater pumping. The effects of subsidence include damage to buildings and infrastructure, increased flood risk in low-lying areas, and lasting damage to groundwater aquifers and aquatic ecosystems. Based on a review of a USGS subsidence map, the Project site is not in an area of subsidence (USGS 2023). There is no known evidence of land subsidence in the Santa Margarita Groundwater Basin (SMGWA 2021).

The only potential cause of subsidence in the Basin is aquifer-compaction caused by lowered groundwater levels from groundwater pumping, as described in the Santa Margarita GSP. While the Project is not located in an area of subsidence, the Project would result in additional drawdown of the Santa Margarita Groundwater Basin caused by groundwater pumping from the new well. The Monterey Formation and Lompico aquifer have experienced up to 200 feet in groundwater decline in the Scotts Valley area but no known subsidence impacts have been observed in the Basin. Pumping-induced subsidence is generally restricted to unconsolidated deposits of clay and fine silt, in which extraction of pore water results in the grains of sediment no longer being subjected to the buoyant support of fluid-saturated pore space. The collapse is inelastic in that, even if pumping were to cease, the deposit has less pore space to hold water and reduced conductivity. In contrast, the Basin's three principal aquifers are sandstones that are, to varying degrees, consolidated and cemented. When groundwater is extracted from the pores, the pores do not collapse (as they would in unconsolidated deposits or clay-rich rocks) because the framework of sand and silt grains remains due to grain-on-grain contact and due to lithologic cement that holds the grains in place. Subsidence caused by groundwater pumping in the Basin is not expected due to the lack of land subsidence related to historical declines in groundwater levels combined with the consolidated nature of Basin sediments (SMGWA 2021).

Therefore, the Project would have a less-than-significant impact related to unstable geologic units or soils.

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

Less-than-Significant Impact. Expansive soils can undergo significant volume change with changes in moisture content; they shrink and harden when dried and expand and soften when wetted. Expansive soils are generally clay-rich deposits. The primary soil types mapped by the NRCS as expansive are Watsonville

loam, Clear Lake clay, Diablo clay, Fagan loam, Los Osos loam, Mocho silt loam, Pinto loam, Felton sandy loam, Cropley silty clay, Danville loam, and Lompico Varient loam. The Project site, which is underlain by Soquel loam, is not mapped as an area containing expansive soils (County of Santa Cruz 2021). Nevertheless, construction would be completed in accordance with CBC regulations, which include provisions for construction on expansive soils. These construction techniques include over-excavation of soils beneath structures and pipelines, followed by construction on a layer of sandy, nonexpansive soils. Alternatively, post-tensioned slabs can be constructed to prevent cracking associated with expansive soils. In addition, construction and operation of the Project would not exacerbate the potential for soil expansion to occur. Therefore, the Project would have a less-than-significant impact related to expansive soil.

e) ***Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

No Impact. The Project would be connected to the local sanitary sewer system and would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, the Project would have no impact related to soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems.

f) ***Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

Less-than-Significant Impact with Mitigation Incorporated. Paleontological resources are the remains or traces of plants and animals that are preserved in earth's crust, and per the Society of Vertebrate Paleontology (SVP) (2010) guidelines, are older than written history or older than approximately 5,000 years. They are limited, nonrenewable resources of scientific and educational value, which are afforded protection under state laws and regulations.

According to surficial geological mapping by Brabb (1997) at a 1:62,500 scale and the geological time scale of Cohen et al. (2021), the Project site is underlain by Holocene (<11,700 years ago) undifferentiated alluvial deposits (mapped as Qal); however, sediments from the Late Miocene and Pliocene (11.63 million years ago [mya] to 2.58 mya) Purisima Formation (mapped as Tp and Tps), and the late Miocene (11.63 mya to 5.3 mya) Santa Cruz Mudstone (mapped as Tsc) are mapped very near to the Project site and likely underlie the Project site at depth.

Dudek requested a paleontological records search from the Natural History Museum of Los Angeles County (NHMLA) on June 5, 2023, and the results were received on June 11, 2023 (NHMLA 2023). The NHMLA reported no fossil localities from within the Project site; however, they reported 12 localities nearby from similar sediments that likely underlie the Project site at depth. Most of these localities, between 5 and 7.5 miles southwest of the Project location, have been assigned to the Purisima formation. Fossils from these localities include mammals (seals, walrus, dolphin), fish (flounder, perch, smelt, rockfish, shark), invertebrates (brachiopods, snails, clams, crabs) (NHMLA 2023).

Although no paleontological resources were identified within the Project site as a result of the institutional records search or desktop geological and paleontological review, there are several previous fossil localities located within the same or similar sediments that likely underlie the Project site (NHMLA 2023). In addition, the Project site is not anticipated to be underlain by unique geologic features. The Project site is underlain by undifferentiated alluvial deposits that range in paleontological sensitivity from low (Holocene) on the

surface to high (Pleistocene) with depth. These alluvial deposits are likely underlain, at depth, by older Miocene and Pliocene sediments that are high paleontological sensitivity. The deeper alluvial sediments and anything below those require paleontological monitoring by a paleontologist meeting SVP (2010) standards. If intact paleontological resources are located on site, ground-disturbing activities associated with construction of the Project, such as large diameter (two feet or greater) drilling, grading during site preparation, and trenching for utilities, would have the potential to destroy a unique paleontological resource or site. As such, the Project site is considered to be potentially sensitive for paleontological resources, and without mitigation, the potential damage to paleontological resources during construction associated with the Project is considered a potentially significant impact. Given the proximity of past fossil discoveries in the surrounding area within the same or similar sediments as those found within the Project site at depth, the Project site is highly sensitive for supporting paleontological resources below the depth of fill and weathered, alluvial deposits. However, upon implementation of MM GEO-1, impacts would be reduced to below a level of significance.

MM GEO-1: Paleontological Resources Impact Mitigation Program and Paleontological Monitoring. Prior to commencement of any grading activity on site, the Scotts Valley Water District shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (2010) guidelines. The qualified paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the Project that shall be consistent with the SVP (2010) guidelines and include the following: preconstruction meeting attendance and worker environmental awareness training; locations where paleontological monitoring is required within the Project site based on construction plans and/or geotechnical reports; procedures for adequate paleontological monitoring and discoveries treatment; and paleontological methods (including sediment sampling for microinvertebrate and microvertebrate fossils), reporting, and collections management. Costs for laboratory and museum curation fees (if fossils are recovered) shall be the responsibility of the Scotts Valley Water District. A qualified paleontological monitor shall be on site during initial rough grading and other significant ground-disturbing activities, including large diameter (two feet or greater) drilling below a depth of five feet below the ground surface. No paleontological monitoring is necessary during ground disturbance within artificial fill, determined to be present. In the event that paleontological resources (e.g., fossils) are unearthed during grading or drilling, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot radius buffer. Once documentation and collection of the find is completed, the monitor will allow grading to recommence in the area of the find.

Therefore, with incorporation of MM GEO-1, the Project would have a less-than-significant impact on paleontological resources.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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"/>
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 checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

Climate change refers to any significant change in measures of climate (e.g., temperature, precipitation, or wind patterns) lasting for an extended period of time (i.e., decades or longer). Earth’s temperature depends on the balance between energy entering and leaving the planet’s system, and many factors (natural and human) can cause changes in Earth’s energy balance. The “greenhouse effect” is the trapping and buildup of heat in the atmosphere near Earth’s surface (the troposphere). The greenhouse effect is a natural process that contributes to regulating Earth’s temperature, and it creates a livable environment on Earth. The greenhouse effect traps heat in the troposphere through a threefold process: (1) short-wave radiation emitted by the Sun is absorbed by the Earth; (2) the Earth emits a portion of this energy in the form of long-wave radiation; and (3) GHGs in the upper atmosphere absorb this long-wave radiation and emit this long-wave radiation into space and back toward the Earth. This trapping of the long-wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect. GHG emissions occur both naturally and as a result of human activities. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing Earth’s surface temperature to rise. Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state’s primary GHG emissions reduction programs, GHGs include CO₂, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃) (see also 14 CCR 15364.5).⁷ The three GHGs evaluated herein are CO₂, CH₄, and N₂O. Emissions of HFCs, PFCs, SF₆, and NF₃ are generally associated with industrial activities including the manufacturing of electrical components, heavy-duty air conditioning units, and insulation of electrical transmission equipment (substations, power lines, and switch gears.).

⁷ Climate-forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in California Health and Safety Code Section 38505; impacts associated with other climate-forcing substances are not evaluated herein.

Therefore, emissions of these GHGs were not evaluated or estimated in this analysis because the Project would not include these activities or components and would not generate HFCs, PFCs, SF₆, and NF₃ in measurable quantities.

The Intergovernmental Panel on Climate Change (IPCC) developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The reference gas used is CO₂; therefore, GWP-weighted emissions are measured in metric tons (MT) of CO₂ equivalent (CO₂e). Consistent with CalEEMod version 2022.1, this GHG emissions analysis assumed the GWP for CH₄ is 25 (i.e., emissions of 1 MT of CH₄ are equivalent to emissions of 25 MT of CO₂), and the GWP for N₂O is 298, based on the IPCC's Fourth Assessment Report (IPCC 2007).

The Project site is located within the NCCAB under the jurisdiction of the MBARD, which, to date, has not adopted significance criteria or thresholds for land use projects. The MBARD-adopted significance threshold of 10,000 MT of CO₂e for stationary source projects (MBARD 2016), does not directly apply to the Project, as the majority of emissions are generated by non-stationary sources of GHGs (such as off-road construction equipment and on-road vehicles). In the absence of an adopted numeric threshold by the MBARD and the SVWD, CEQA allows lead agencies to identify thresholds of significance applicable to a project that are supported by substantial evidence. Substantial evidence is defined in the CEQA statute to mean "facts, reasonable assumptions predicated on facts, and expert opinion supported by facts" (14 CCR 15384[b]).⁸ Substantial evidence can be in the form of technical studies, agency staff reports or opinions, expert opinions supported by facts, and prior CEQA assessments and planning documents.

As such, the Project was evaluated according to CEQA Guidelines Section 15064.7(c) by considering whether GHG emissions of the Project meet the 900-MT-CO₂e-per-year screening level threshold identified by the California Air Pollution Control Officers Association (CAPCOA) (CAPCOA 2008). The 900-MT-CO₂e-per-year threshold was developed based on various land use densities and future discretionary project types to determine the size of projects that would likely have a less than cumulatively considerable contribution to climate change. The CAPCOA threshold was developed to ensure capture of 90% or more of likely future discretionary developments with the objective to set the emissions threshold low enough to capture a substantial fraction of future development while setting the emission threshold high enough to exclude small development projects that would contribute a relatively small fraction of cumulative statewide GHG emissions. CAPCOA's 900-MT-CO₂e-per-year threshold was developed to meet the target identified by AB 32 of reducing emissions to 1990 levels by year 2020. After CAPCOA identified the 900-MT-CO₂e-per-year threshold, SB 32 and AB 1279 were passed, which require GHG emissions be reduced to 40% below 1990 levels by 2030, and 85% below 1990 levels by 2045, respectively. Though the CAPCOA threshold does not explicitly consider the reduction targets set by SB 32 or AB 1279, the CAPCOA threshold was developed with an aggressive project-level GHG emission capture rate of 90%. Projects that generate emissions beyond the 900-MT-CO₂e-per-year screening level threshold are required to implement feasible mitigation measures to reduce their impacts on climate change. Projects that meet or fall below CAPCOA's screening level threshold of 900 MT CO₂e per year of GHG emissions require no further analysis and are not required to implement mitigation measures to reduce GHG emissions. As such, the CAPCOA threshold of 900 MT CO₂e per year is used as a quantitative threshold for the analysis of impacts related to GHG emissions generated by the Project.

⁸ 14 CCR 15384 provides the following discussion: "Substantial evidence" as used in the Guidelines is the same as the standard of review used by courts in reviewing agency decisions. Some cases suggest that a higher standard, the so called "fair argument standard" applies when a court is reviewing an agency's decision whether or not to prepare an EIR. Public Resources Code section 21082.2 was amended in 1993 (Chapter 1131) to provide that substantial evidence shall include "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." The statute further provides that "argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment, is not substantial evidence."

Analytical Methods

Project GHG emissions were estimated using the CalEEMod modeling described above in Section 3.3, Air Quality, and further discussed below. All results are included in Appendix A.

Construction

Construction of the Project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. The analysis of GHG emissions used the same methodology and modeling inputs assumptions as the analysis of air quality impacts in Section 3.3, Air Quality. All details for construction criteria air pollutants discussed in Section 3.3, Analytical Methods, are also applicable for the estimation of construction related GHG emissions. See Section 3.3 for a discussion of construction emissions calculation methodology and modeling inputs assumptions used in the GHG emissions analysis.

Operation

All details for criteria air pollutants discussed in Section 3.3 are also applicable for the estimation of operational mobile source and stationary source GHG emissions. In addition, Project GHG emissions would be associated with water usage, waste, and refrigerants (cooling). Extraction, conveyance, and distribution of water for the Project would require the use of electricity, which would result in associated indirect GHG emissions. The electricity associated with pumping has been accounted for under energy use, but the minimal outdoor landscaping water needs have been accounted for under this category. The Project would also generate minimal waste during operations. CalEEMod default waste generation for a light industrial land use was assumed. The building may also have some equipment for air conditioning and refrigeration, which could be needed for some equipment. Most of the refrigerants used today are hydrofluorocarbons or blends thereof, which can have high GWP values. All equipment that uses refrigerants has a charge size (i.e., quantity of refrigerant the equipment contains), and an operational refrigerant leak rate, and each refrigerant has a GWP that is specific to that refrigerant. CalEEMod default values for a light industrial land use were applied, which quantify refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime, and then derives average annual emissions from the lifetime estimate (CAPCOA 2022). Regarding long-term operations, the Project is conservatively assumed to include one daily trip per day (two one-way trips per weekday). The pump station would consume a total of 230,000 kWh of electricity per year and 50 gallons of water per week, as provided by the SWWD.

- a) ***Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

Less-than-Significant Impact. The Project would result in the generation of short-term construction emissions and long-term operational emissions.

Construction

Construction of the Project would result in temporary GHG emissions primarily associated with use of off-road construction equipment, on-road trucks, and vehicles transporting construction workers to and from the Project site. Construction emissions associated with the Proposed Project are depicted in Table 6.

Table 6. Estimated Annual Construction Greenhouse Gas Emissions

Year	CO ₂	CH ₄	N ₂ O	CO ₂ e
	(metric tons per year)			
2024	135	<0.01	<0.01	136
2025	2	<.01	<.01	2
Total for All Years of Construction	137	0	0	138
<i>Amortized Over 30 Years</i>				5

Notes: GHG = greenhouse gas; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.

Numbers may not add due to rounding.

See Appendix A for complete results.

Since construction emissions are short-term, the total emissions were amortized over 30-years to represent a long-term annual emission rate and summed with the operational emissions for comparison to the applied significance threshold, below. As shown in Table 6, Project construction would result in the generation of an estimated 5 MT CO₂e per year amortized over a 30-year period.

Operation

Following the completion of construction activities, the Project would generate GHG emissions from mobile sources (vehicle trips), area sources (landscaping equipment), energy sources (electricity consumption), water use, waste, and stationary sources (backup generator). The estimated annual operational Project GHG emissions from these sources are shown in Table 7.

Table 7. Estimated Annual Operational Greenhouse Gas Emissions

Emissions Source	CO ₂	CH ₄	N ₂ O	R	CO ₂ e
	(metric tons per year)				
Mobile	1	0	0	<0.01	1
Area	<1	0	0	0	0
Energy	21	<0.01	0<0.01	0	21
Water	<0.01	0	0	0	<0.01
Waste	<1	<1	<1	0	<1
Refrigerants	0	0	0	<1	<1
Stationary - Emergency Generator	7	<0.01	<0.01	0	7
Total	29	0	0	0	30
<i>Amortized Construction Emissions</i>					5
Total with Amortized Construction Emissions					35
Threshold					900
Exceed Threshold?					No

Notes: CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; R=refrigerants; CO₂e = carbon dioxide equivalent; GHG = greenhouse gas.

Totals may not sum due to rounding.

See Appendix A for complete results.

The primary source of operational GHG emissions would be from energy associated with operating the groundwater extraction well. As shown in Table 7, the GHG emissions from operation of the Project would total approximately 30 MT CO₂e per year. Combined amortized construction GHG emissions and annual operational GHG emissions would result in a total of approximately 35 MT CO₂e per year. As such, annual operational GHG emissions with amortized construction GHG emissions would not exceed the applied significance threshold of 900 MT CO₂e per year. Therefore, the Project would have a less-than-significant impact related to GHG emissions.

b) *Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Less-than-Significant Impact. Neither the City of Scotts Valley nor the SVWD have adopted a Climate Action Plan for the purpose of reducing GHG emissions. Although there are no mandatory GHG plans, policies, or regulations, or finalized agency guidelines that would apply to the Project, a description of relevant plans with GHG reduction strategies is provided below.

Association of Monterey Bay Area Governments

The Association of Monterey Bay Area Governments (AMBAG) is the federally designated Metropolitan Planning Organization (MPO) for the region, which includes Monterey, San Benito, and Santa Cruz counties. In June 2022, AMBAG adopted the Monterey Bay 2045 Moving Forward – 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). AMBAG’s 2045 MTP/SCS is a regional growth-management strategy that targets per-capita GHG reduction from passenger vehicles and light-duty trucks within the Monterey Bay Area. The 2045 MTP/SCS incorporates local land use projections and circulation networks from city and county general plans. The implementation of the 2045 MTP/SCS is anticipated to achieve a 4%-per-capita reduction and nearly 7%-per-capita reduction in GHG emissions from passenger vehicles by 2020 and 2035, respectively (AMBAG 2022). The 2045 MTP/SCS outlines the region’s proposed transportation network, emphasizing multimodal system enhancements, system preservation, and improved access to high quality transit, as well as land use development that complements this transportation network (AMBAG 2022). In addition, AMBAG is working with the Santa Barbara County Association of Governments and the San Luis Obispo Council of Governments to develop the Central Coast Zero Electric Vehicle Strategy (CCZEVS), which will identify gaps and opportunities to implement zero-emission vehicle infrastructure on the Central Coast, including on or near the State Highway System, major freight corridors, and transit hubs (AMBAG 2022). These transportation strategies would reduce vehicle miles traveled (VMT) and associated petroleum fuels.

Typically, a project would be consistent with the MTP/SCS if the project does not exceed the underlying growth parameters within the MTP/SCS. Since the Project would not result in increased long-term employment or population growth, the Project would not contribute to an exceedance of AMBAG growth projections for the region and the would not conflict with the 2045 MTP/SCS.

Potential to Conflict with State Reduction Targets and CARB’s Scoping Plan

The California State Legislature passed the Global Warming Solutions Act of 2006 [Assembly Bill (AB) 32] to provide initial direction to limit California’s GHG emissions to 1990 levels by 2020 and initiate the state’s long-range climate objectives. Since the passage of AB 32, the State has adopted GHG emissions reduction targets for future years beyond the initial 2020 horizon year. For the Project, the relevant GHG emissions

reduction targets include those established by SB 32 and AB 1279, which require GHG emissions be reduced to 40% below 1990 levels by 2030, and 85% below 1990 levels by 2045, respectively. In addition, AB 1279 requires the state achieve net-zero GHG emissions by no later than 2045 and achieve and maintain net negative GHG emissions thereafter. AB 1279 relies on future carbon capture to capture and store 100 million MT CO₂e by 2045.

As defined by AB 32, CARB is required to develop The Scoping Plan, which provides the framework for actions to achieve the State's GHG emission targets. The Scoping Plan is required to be updated every five years and requires CARB and other state agencies to adopt regulations and initiatives that will reduce GHG emissions statewide. The first Scoping Plan was adopted in 2008, and was updated in 2014, 2017, and most recently in 2022. While the Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations,⁹ it is the official framework for the measures and regulations that will be implemented to reduce California's GHG emissions in alignment with the adopted targets. Therefore, a project would be found to not conflict with the statutes if it would meet the Scoping Plan policies and would not impede attainment of the goals therein.

CARB's 2017 Climate Change Scoping Plan update was the first to address the state's strategy for achieving the 2030 GHG reduction target set forth in SB 32 (CARB 2017), and the most recent CARB 2022 Scoping Plan for Achieving Carbon Neutrality update outlines the state's plan to reduce emissions and achieve carbon neutrality by 2045 in alignment with AB 1279 and assesses progress toward the 2030 SB 32 target (CARB 2022b). As such, given that SB 32 and AB 1279 are the relevant GHG emission targets, the 2017 and 2022 Scoping Plan updates that outline the strategy to achieve those targets, are the most applicable to the Project.

The 2017 Scoping Plan included measures to promote renewable energy and energy efficiency (including the mandates of SB 350), increase stringency of the Low Carbon Fuel Standard (LCFS), measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short-Lived Climate Pollutant Plan, and increase stringency of SB 375 targets. The 2022 Scoping Plan builds upon and accelerates programs currently in place, including moving to zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; and displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines) (CARB 2022). Many of the measures and programs included in the Scoping Plan would result in the reduction of Project-related GHG emissions with no action required at the project-level. The Project would support the 2017 and 2022 Scoping Plan Update's goals by not including natural gas (i.e., all-electric facility).

The 2045 carbon neutrality goal required CARB to expand proposed actions in the 2022 Scoping Plan to include those that capture and store carbon in addition to those that reduce only anthropogenic sources of GHG emissions. However, the 2022 Scoping Plan emphasizes that reliance on carbon sequestration in the state's natural and working lands will not be sufficient to address residual GHG emissions, and achieving carbon neutrality will require research, development, and deployment of additional methods to capture atmospheric GHG emissions (e.g., mechanical direct air capture). Given that the specific path to neutrality will

⁹ The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

require development of technologies and programs that are not currently known or available, the Project’s role in supporting the statewide goal would be speculative and cannot be wholly identified at this time.

Overall, the Project would comply will all regulations adopted in furtherance of the Scoping Plan to the extent applicable and required by law. Several Scoping Plan measures would result in reductions of Project-related GHG emissions with no action required at the project level, including those related to energy efficiency, reduced fossil fuel use, and renewable energy production by the utility. As demonstrated above, the Project would not conflict with CARB’s 2017 or 2022 Scoping Plan updates and with the state’s ability to achieve the 2030 and 2045 GHG-reduction and carbon-neutrality goals.

Based on the above considerations, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, the Project would have a less-than-significant impact related to conflicts with applicable GHG reduction plans.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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"/>
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"/>
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 type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site that 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 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"/>

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<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"/>

Setting

Hazardous Materials

As defined in California Health and Safety Code Section 25501, “hazardous material” means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant hazard to human health and safety, or to the environment, if released into the workplace or the environment. Hazardous materials include certain products which are corrosive, ignitable, toxic, radioactive, flammable, or explosive and reactive. Hazardous wastes are hazardous substances that no longer have a practical use, such as material that has been abandoned, discarded, spilled, or contaminated, or is being stored prior to proper disposal. California Code of Regulations, Title 22, Section 66261.10 defines “hazardous waste” as a waste that may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed or otherwise managed.

The California Environmental Protection Agency (CalEPA) certifies local government agencies as Certified Unified Program Agencies (CUPAs) to implement hazardous waste and materials standards. The Santa Cruz County Environmental Health Division is designated as the local CUPA in Santa Cruz County, including all four cities. As the CUPA, the Santa Cruz County Environmental Health Division is responsible for enforcing state statutes and regulations as well as the local ordinances (Santa Cruz County Code Chapter 7.100) pertaining to the storage, use, and disposal of hazardous materials and hazardous waste. All businesses or persons that store hazardous materials must have a permit issued by the Santa Cruz County Environmental Health Division.

Hazardous Building Materials

Hazardous building materials may be present in various components of older buildings, such as construction materials, finishes, insulation, and adhesives, and could pose risks to human health during demolition if not properly managed. These include asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs). Asbestos was commonly used in acoustical ceilings, plaster, wallboard, and thermal insulation for water heaters and pipes, until many, but not all, ACMs were banned in construction products in 1989. Asbestos poses a health risk when it becomes friable, such as through disturbance or damage, and is inhaled. LBP was commonly used in buildings constructed before its ban in 1978. Lead is a toxic metal that can be harmful, especially to children, if ingested or inhaled. Polychlorinated biphenyls (PCBs) were used in various building materials, such as caulking, sealants, and electrical equipment, until their ban in 1979. PCBs are persistent organic pollutants that can have adverse health effects, including impacts on the immune, reproductive,

and nervous systems. As the building on the Project site was constructed in 1964, prior to the ban of these materials, it was inspected and tested for ACMs and LBPs, which confirmed the presence of these materials (All Bay Environmental 2023a, 2023b).

Hazardous Materials Release Sites

Government Code Section 65962.5 requires CalEPA to compile a list of hazardous waste and substances sites (also known as the Cortese List). The Cortese List provides information about the locations of known hazardous materials release sites. The following databases provide information regarding sites that meet the Cortese List requirements:

- List of hazardous waste and substance sites from the Department of Toxic Substances Control (DTSC) EnviroStor database.
- List of leaking underground storage tank (LUST) sites from the SWRCB GeoTracker database.
- List of solid waste disposal sites identified by the SWRCB with waste constituents above hazardous waste levels outside the waste management unit.
- List of active cease and desist orders and cleanup and abatement orders from the SWRCB.
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the California Health and Safety Code, identified by DTSC.

Based on a search of these databases (CalEPA 2023a, 2023b, 2023c; DTSC 2023a, 2023b; SWRCB 2023), the Project site is not located on the Cortese List. Four case-closed LUST sites, three evaluation sites, and one tiered permit site are located within 0.25 miles of the Project site, discussed further below.

Emergency Response and Evacuation

The City of Scotts Valley Emergency Operations Plan (City of Scotts Valley 2015) provides a framework for coordination of response and recovery efforts within the City in coordination with local, state, and federal agencies in the event of major emergencies associated with natural disasters, human-caused emergencies, and technological incidents, such as earthquakes, flooding, wildland fires, and hazardous materials releases. The City's primary Emergency Operations Center (EOC), which functions as a communications and coordination center in the event of a disaster or large-scale emergency, is located at City Hall at 1 Civic Center Drive, approximately 0.6 miles southwest of the Project site. Evacuation routes are determined on a case-by-case basis by EOC personnel. The General Plan Safety Element, Figure S-6, displays the City's evacuation routes, as well as places of assembly in the event of emergencies (City of Scotts Valley 1994c). Evacuation routes and places of assembly were identified due to their ability to accommodate significant numbers of people, their relative location to freeways and arterials, and their geographic location. The evacuation routes consist of freeways, including Highway 17; arterials, including Mount Hermon Road and Scotts Valley Drive; and collectors, including Lockwood Lane, Whispering Pines Drive, Glen Canyon Road, Bean Creek Road, Granite Creek Road, and Glenwood Drive. Six places of assembly are identified in the City, including City Hall, Scotts Valley Middle School, Baymonte Christian School, Hope Valley Church, Vine Hill Elementary School, and Baymonte Early Childhood Learning Center.

- a) ***Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***

and

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

Less-than-Significant Impact. Implementation of the Project would entail the routine transport, use, and disposal of hazardous materials. Construction activities would involve the use of commonly used hazardous substances such as gasoline, diesel fuel, lubricating oil, adhesive materials, grease, solvents, and architectural coatings. Project operations would also include small amounts of commonly used hazardous substances such as lubricating oil, grease, and solvents.

Strict federal and state regulations are in place for the transport of hazardous materials and wastes, and state and local regulations for the storage and handling of hazardous materials. Routine transport of hazardous materials to and from the Project site could result in an incremental increase in the potential for accidents; however, the Project would be required to comply with the California Department of Transportation and the California Highway Patrol regulations for the transportation of hazardous materials and wastes, including container types and packaging requirements, as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. Santa Cruz County Code Chapter 7.100 regulates the use, handling, and storage of hazardous materials and requires Hazardous Materials Business Plans (HMBPs) for quantities of hazardous materials that are less than the state thresholds.

As indicated above, the existing building on the Project site contains ACMs and LBP (All Bay Environmental 2023a, 2023b), and may contain PCBs. Demolition of the existing building on site would be subject to regulations to protect workers and limit exposure to hazardous building materials. The federal Asbestos National Emissions Standards for Hazardous Air Pollutants (NESHAP), set forth in 40 CFR Part 61, Subpart M, are intended to minimize the release of asbestos fibers during activities involving the handling of asbestos. The Project would also be required to comply with MBARD Rule 424, which adopts the federal Asbestos NESHAP by reference and provides clarification on notification procedures and asbestos surveys. Compliance with MBARD Rule 424 requires surveys to be conducted prior to demolition activities that would disturb materials that might contain asbestos, and if present, implementation of asbestos containment procedures. The federal Occupational Safety and Health Administration (OSHA) has also established regulations to protect workers from exposure to asbestos (29 CFR 1910.1001) and lead (29 CFR 1910.1025). The Cal/OSHA also enforces standards for asbestos (8 CCR Section 1529) and lead (8 CCR Section 1532.1) in construction to protect workers, which include the federal OSHA's asbestos and lead regulations with additional requirements specific to California. Requirements include testing, monitoring, containment, and disposal of asbestos and lead-based materials such that exposure levels do not exceed Cal/OSHA standards. While OSHA and Cal/OSHA do not have specific regulations focused on PCBs, Cal/OSHA's Hazard Communication Standard (8 CCR Section 5194) would apply, which requires employers to provide information about the hazardous chemicals present in the workplace and associated hazards to employees. Adherence to the applicable regulations described above would ensure that the Project would minimize impacts related to removal of hazardous building materials during demolition.

All hazardous materials would be managed in accordance with applicable federal, state, and local laws and regulations, which are intended to minimize health risk to the public associated with hazardous materials. Therefore, the Project would have a less-than-significant impact related to the creation of a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

- c) ***Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

No Impact. No existing or proposed schools are located within 0.25 miles of the Project site. Therefore, the Project would have no impact related to hazardous emissions or handling of hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.

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

Less-than-Significant Impact. As indicated above, a search of the Cortese List databases did not reveal any records of the Project site pertaining to LUSTs, toxic releases, or site cleanup requirements. As the Project site is not included on the Cortese List, there are no known on-site hazards related to the release of hazardous materials from contaminated soil or groundwater.

Four case-closed LUST sites, three evaluation sites, and one tiered permit site are located within 0.25 miles of the Project site. The closest of these is a LUST site located approximately 100 feet from the site across the street at 5276 Scotts Valley Drive, the site of a former gasoline service station. The release was discovered when five underground tanks were removed from the site in April 1988 and soil underlying the tanks was found to be degraded with gasoline. In January 1997, the responsible party collected soil and groundwater samples from four temporary borings. The lateral extent of degradation was not defined, but the maximum concentration of benzene found was 1.7 parts per billion (ppb), slightly exceeding the water quality objective of 1 ppb. The Central Coast RWQCB determined that a plume with concentrations of such low magnitude and of such limited extent would not have significant migration (Central Coast RWQCB 1998a). The site investigation and/or remediation was completed; the site received closure from the Central Coast RWQCB in November 1998 and no further action related to the LUST was required (Central Coast RWQCB 1998b). The site has since been redeveloped with a commercial building and paved parking lot. Given the determinations by the Central Coast RWQCB, impacts to the Project site from the past hazardous materials release at 5276 Scotts Valley Drive are unlikely. Therefore, the Project would have a less-than-significant impact related to creation of a significant hazard to the public or the environment as a result of known hazardous materials release sites compiled pursuant to Government Code Section 65962.5.

- 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?***

No Impact. The Project site is not located within two miles of a public use airport nor is it located within an airport land use plan. Therefore, the Project would not result in a safety hazard or excessive noise for people residing or working in the Project area due to airports.

- f) ***Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

Less-than-Significant Impact. As indicated above, the City of Scotts Valley General Plan identifies Scotts Valley Drive, where the Project site is located, as one of the City's evacuation routes in the event of emergencies requiring evacuations. The nearest identified points of assembly to the Project site are Baymonte Christian School and Hope Valley Church, approximately 0.5 miles northeast, and City Hall, approximately 0.6 miles southwest (City of Scotts Valley 1994c). As further discussed in Section 3.17, Transportation, the Project would not include changes to the existing street system that could hinder the movement of residents or emergency vehicles through the area in the event of emergencies. Construction and on-site staging areas would not obstruct Project site egress or ingress, which is from a single existing driveway on Scotts Valley Drive. Construction of utility connections would require partial road closures or access limitations in the public right-of-way of Scotts Valley Drive on a temporary and periodic basis during the construction period. An encroachment permit from the City would be required for work done within the public right-of-way, which would include provisions for addressing lane closures or traffic diversions in accordance with the City of Scotts Valley Standard Details and Specification (City of Scotts Valley 2017). Implementation of these requirements would ensure that access would be maintained for residents and emergency vehicles to continue to move through the area in the event of emergencies during construction. During operation, the Project would have limited operational traffic and vehicle trips associated with routine maintenance of the facility which would not affect access for emergency response or evacuation. Therefore, the Project would have a less-than-significant impact related to impaired implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan.

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

No Impact. As further discussed in Section 3.20, Wildfire, the Project site is not located in a state responsibility area (SRA) or designated as a very high fire hazard severity zone (FHSZ) (CAL FIRE 2007a). The City is currently in the process of updating its General Plan; the final draft of the General Plan Update identifies fire hazard areas within the City (City of Scotts Valley 2020). The Project site is not located within an identified fire hazard area. The nearest fire hazard area to the Project site is the area surrounding Cadillac Drive, where narrow roads and fuel loads present fire hazard issues, approximately 0.2 miles to the west. The Project site is not located near or adjacent to wildlands that could transport embers from a wildland fire into the Project area. The Project site is located in an area that is comprised primarily of commercial land uses, with commercial and residential uses adjacent to the Project site. The Project does not propose habitable structures that would result in people residing on the Project site, nor does it include components that would pose a substantial risk of wildfire ignition. Therefore, the Project would have no impact related to exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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"/>
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 checked="" type="checkbox"/>	<input 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:				
i) result in substantial erosion or siltation on- or off-site;	<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"/>
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"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

Surface Water

The City lies entirely within the watershed of the San Lorenzo River, which originates in the Santa Cruz Mountains and drains to the Monterey Bay in the City of Santa Cruz. The San Lorenzo River watershed drains approximately 138 square miles, consisting of a 25-mile-long main stem and nine principal tributaries (SCCEH 2023). Within the City are parts of

three watersheds of major creek tributaries to the San Lorenzo River, as well as a small area which drains towards the river itself. The three creeks are Branciforte Creek, Bean Creek, and Carbonera Creek. The Project site is located within the watershed of Carbonera Creek, which encompasses 7.4 square miles. Carbonera Creek begins 1.3 miles north of the City limits and flows generally southwest through the length of the City, eventually joining Branciforte Creek in the City of Santa Cruz. Carbonera Creek typically becomes dry or near dry during the summer months. Carbonera Creek has two main tributaries in Scotts Valley: Camp Evers Creek runs south of Mt. Hermon; West Branch Creek runs east of Glenwood Drive. These creeks have been altered by road development, bridges, and culverts (City of Scotts Valley 2020).

Groundwater

The Santa Margarita Groundwater Basin underlies the Project site. The Basin covers more than 30 square miles in the Santa Cruz Mountains, forming a roughly triangular area that extends from Scotts Valley in the east, to Boulder Creek in the northwest, to Felton in the southwest. The Basin consists of a sequence of sandstone, siltstone, and shale that are underlain by granite that lie within a geologic trough called the Scotts Valley Syncline. The sandstone units serve as the primary aquifers that provide the majority of groundwater production for the local water supply. The Basin's principal aquifers are the Santa Margarita, Lompico, and Butano Sandstones. The Monterey Formation is an aquitard between the Santa Margarita and Lompico Sandstones. Precipitation is the main source of natural groundwater recharge to the Basin's aquifers. It enters the shallowest aquifers either as direct infiltration through the soil or indirectly from streamflow infiltrating through the streambed. Most creeks in the Basin are fed by groundwater discharges with groundwater accounting for most summer and fall baseflows (SMGWA 2021).

The SMGWA, consisting of representatives from the SVWD, SLVWD, and County of Santa Cruz, oversees the groundwater management activities of the Santa Margarita Groundwater Basin area. Pursuant to the requirements of California's SGMA, enacted in September 2014, the SMGWA's GSP was adopted in 2021 and includes four key basin management goals: (1) Provide a safe and reliable groundwater supply that meets the current and future needs of beneficial users; (2) Support groundwater sustainability measures which enhance groundwater supply in the Basin, utilizing integrated water management principles; (3) Provide for operational flexibility within the Basin through a drought reserve that considers future climate change; and (4) Oversee planning and implementation of cost-effective projects and activities to achieve sustainability (SMGWA 2021).

There are lowered groundwater levels in two of the Basin's primary aquifers in the Mount Herman/South Scotts Valley area. In this area, a portion of the Santa Margarita aquifer is dewatered due to a 30- to 40-foot drop in groundwater level, and the Lompico aquifer has had a 150- to 200-foot groundwater level decline. Groundwater levels in both aquifers declined from the late 1960s to mid-1990s when there was extensive development in the south Scotts Valley area, increasing water demand and impervious surface area. Groundwater level declines were exacerbated by an 11-year drought starting in 1984 (SMGWA 2021). Since 2004 SVWD has actively worked on reducing the system demand through introduction of a recycled water supply, implementation of water use efficiency programs, and minimizing water waste (SVWD and SLVWD 2021).

Groundwater extracted from extraction wells in the Lompico and Butano aquifers is used to supply nearly all water distributed by the SVWD. About 200 acre-feet per year of recycled water is also used to supplement supply. Current extraction wells, Wells #10A, #11A, and #11B are screened in the Lompico aquifer and Wells #3B and Orchard are screened in both the Lompico and Butano aquifers. From October 2022 to the end of March 2023, SVWD extraction was 466.8 AF, about 40 to 140 acre-feet lower than historical extraction volumes during the wet season in the past 5 years. The SVWD extracted groundwater from Wells #10A, #11B, and Orchard in the first half of water year (WY) 2023. About 53% of extraction was from Lompico Wells #10A and #11B and 47% of extraction was from Lompico/Butano Orchard Well. Well #3B has not been pumped recently due to its poor condition and is being

replaced and Well #11A was rested during the entire WY 2023 wet season (M&A 2023a). An assessment of groundwater impacts of the Project was prepared by Montgomery & Associates (M&A 2023b) and is provided in Appendix E; the results of this assessment are summarized below.

Water Quality

The Porter-Cologne Water Quality Control Act of 1969 is California's statutory authority for the protection of water quality. Under the Act, the State must adopt water quality policies, plans, and objectives that protect the State's waters for the use and enjoyment of the people. The Act sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update water quality control plans for all the waters of an area. The water quality control plan is defined as having three components: beneficial uses which are to be protected, water quality objectives which protect those uses, and an implementation plan which accomplishes those objectives.

The June 2019 Water Quality Control Plan for the Central Coastal Basin (Basin Plan) is the Central Coast RWQCB's current master water quality control planning document (Central Coast RWQCB 2019). The Basin Plan establishes beneficial uses for each of the water bodies in the Central Coast Region. CWA Section 303(d) requires states to identify and prepare a list of water bodies that do not meet water quality objectives, and to establish Total Maximum Daily Loads (TMDLs) for each water body to ensure attainment of water quality objectives. The Central Coast RWQCB has adopted TMDLs for sediment and pathogens for Carbonera Creek (Central Coast RWQCB 2019).

Groundwater in the Santa Margarita Groundwater Basin is generally of good quality and does not regularly exceed primary drinking water standards. However, both naturally occurring and anthropogenic groundwater quality constituents of concern are present in some aquifers and areas. The main naturally occurring groundwater quality concerns in the Basin are salinity (measured as total dissolved solids and chloride), iron, manganese, and arsenic. The main anthropogenic groundwater quality concerns are nitrate and constituents of emerging concern which are mainly from septic and sewer discharges together with organic compounds from environmental cleanup sites or other unidentified local releases (SMGWA 2021).

a) *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Less-than-Significant Impact with Mitigation Incorporated. Construction activities could temporarily degrade water quality that could be discharged to the local storm drain system as a result of erosion caused by earthmoving activities or the accidental release of hazardous construction chemicals. Excavation and other construction activities associated with the Project could lead to increased erosion and sedimentation resulting from exposed soils and the generation of water pollutants, including trash, construction materials, and equipment fluids. Additionally, spills, leakage, or improper handling and storage of substances such as oils, fuels, chemicals, metals, and other substances from vehicles, equipment, and materials used during project construction could contribute to stormwater pollutants or leach to underlying groundwater.

Typically, construction-related stormwater pollutant discharges are regulated pursuant to the NPDES Construction General Permit, which requires visual monitoring of stormwater and non-stormwater discharges; sampling, analysis, and monitoring of non-visible pollutants; and compliance with all applicable water quality standards established for receiving waters potentially affected by construction discharges. Furthermore, the Construction General Permit requires implementation of a Stormwater Pollution Prevention Plan (SWPPP) that outlines project-specific BMPs to control erosion. Such BMPs include the use of temporary de-silting basins, construction vehicle maintenance in staging areas to avoid leaks, and installation of silt fences and erosion

control blankets. Coverage under the Construction General Permit is required for projects resulting in greater than 1 acre of disturbance area. Because the Project site is less than 1 acre, the Project is not subject to the Construction General Permit requirements. As such, if not properly managed, construction activities could result in erosion and sedimentation, as well the discharge of chemicals and materials. In such an instance, applicable water quality standards and waste discharge requirements could be violated, and polluted runoff could substantially degrade water quality in the local storm drain system, resulting in a potentially significant construction-related impact on water quality. Implementation of MM HYD-1, provided below, would reduce the construction-related impact on water quality to a less-than-significant level.

MM HYD-1: **Implement Stormwater Control During Construction.** Erosion control and stormwater pollution prevention best management practices (BMPs) shall be implemented to prevent the discharge of construction waste, sediment, debris, or contaminants during construction activities. BMPs shall include, but would not be limited to, the following:

- Installation of perimeter sediment controls such as silt fences, fiber or straw rolls, and/or bales along limits of work/construction areas;
- Minimizing temporary stockpiling of excavated material, locating stockpiled spoils in areas where it cannot enter the storm drain system, and covering of stockpiled spoils;
- Revegetation and physical stabilization of disturbed graded and staging areas;
- Sediment control including fencing, dams, barriers, berms, traps, and associated basins;
- Wind erosion controls such as watering active construction areas as necessary to control fugitive dust, covering inactive storage piles, and covering all trucks hauling dirt or loose materials off site;
- Storage of hazardous materials within an established containment area;
- Inspection of construction equipment daily for leaks of oil, lubricants, or other potential stormwater pollutants, placement of plastic over any ground surface where fueling or equipment maintenance is to occur, and placement of drip pans under equipment parked on site; and
- Keeping emergency spill kits and an adequate supply of erosion control materials (gravel, straw bales, shovels, etc.) on site at all times.

As described in Chapter 2, Project Description, groundwater generated during well development and testing would be discharged in accordance with a sewer discharge permit from the City or diverted to a storm drain inlet just east of the northeast corner of the property on Scotts Valley Drive. The SVWD operates under the Statewide NPDES Permit for Drinking Water System Discharges to Waters of the United States (Order WQ 2014-0194-DWQ, General Order No. CAG140001) issued by the SWRCB. The NPDES Permit allows the SVWD to discharge water into regional stormwater systems pursuant to Section 402 of the federal Clean Water Act (NPDES Permit) and Article 4, Chapter 4, Division 7 of the California Water Code (Waste Discharge Requirements). All water discharged to the storm drain would comply with the NPDES Permit requirements.

Project operation would not involve ground disturbance or result in an increase in impervious surface area on the site, which would limit the potential for off-site migration of sediment and pollutants in runoff. As described in Section 3.9, Hazards and Hazardous Materials, routine use and storage of hazardous materials on the site would be managed in accordance with applicable federal, state, and local laws and regulations, which would

limit the potential for water quality impacts associated with leaching or runoff of chemicals. Therefore, with incorporation of MM HYD-1, the Project would have a less-than-significant impact on water quality.

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

Less-than-Significant Impact. The Project does not include construction of residential, commercial, industrial, or other development that would generate new water demand requiring increased groundwater extraction. However, the Project would result in groundwater pumping at the Project site. To evaluate impacts on groundwater from pumping at the Project site, the Santa Margarita Groundwater Basin groundwater model was used to simulate additional drawdown caused by the new well on nearby production wells (see Appendix E). The simulation modeled pumping from WY 2019 through WY 2073. The “No Project” (baseline) scenario includes the SVWD’s plans to take Wells 11A and 11B out of production due to age and deteriorating well conditions and the soon-to-be constructed replacement of Well 3B. The No Project scenario is based on an assumed annual 1% increase in demand using WY 2023 extraction as the starting point. The “Project” scenario assumes the same annual extraction as the No Project scenario, but with the addition of the proposed Grace Way Well in WY 2025. The Project scenario models extraction from the Grace Way Well beginning at 270 acre-feet per year in WY 2025, with a projected annual demand increase of 1%, until WY 2073 when 313 acre-feet per year is extracted.

Table 8 summarizes results of the groundwater simulation. Wells with responses to pumping at the new well on the Project site were those screened in the Lompico and/or Butano aquifers; wells screened in the Santa Margarita aquifer and Monterey Formation, which are above the Lompico and Butano aquifers, had no response to pumping at the new well and are not discussed herein. Wells screened in the Lompico aquifer include Wells 10/10A, 11A, and 11B. Wells screened in the Butano aquifer include SVWD TW-19. Wells screened in the Lompico and Butano aquifers include Well 3B/3B Replacement, SVWD Monitor #15, and Orchard Well.

Table 8. Summary of Difference in Groundwater Levels between Project Scenarios and Baseline Conditions

Wells	Distance from Project Site (feet)	Groundwater Level Difference between Project Scenario and No Project (Baseline) Scenario (feet)		
		Maximum Lowering	Maximum Rise	Average Difference
Project Site (New Well)	—	31	0	-22
Well 11B	750	18	0	-13
Well 11A*	1,460	16	0	-11
Well 3B / 3B Replacement	4,900	0	89	+63
SVWD Monitor #15*	4,900	0	43	+31
SVWD TW-19*	4,900	0	1.5	+0.9
Orchard Well	6,200	0	99	+69
Well 10A (monitored by Well 10)*	7,400	9	0	-6

Source: Appendix E.

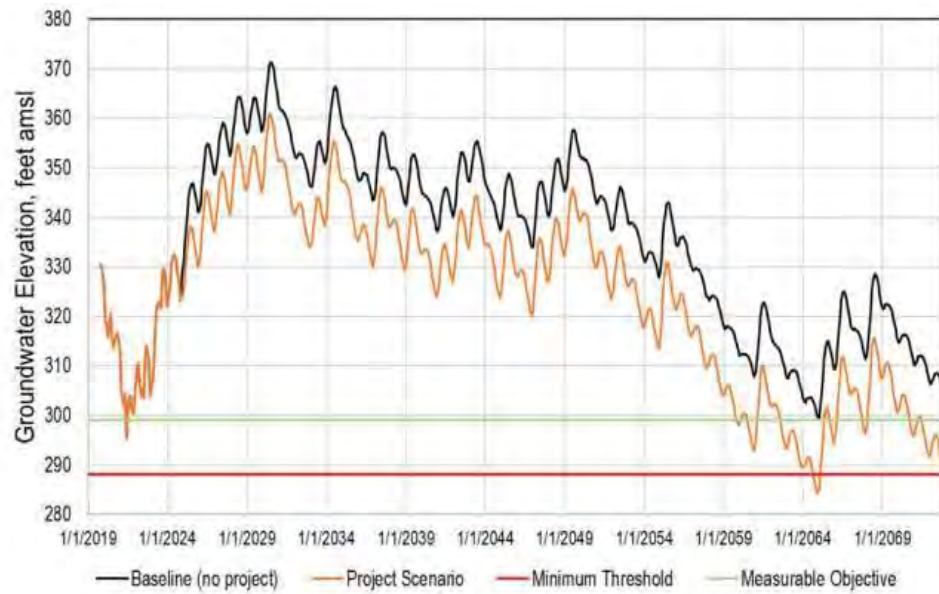
Notes: * = representative monitoring point in the Santa Margarita GSP.

Pumping 270 to 313 acre-feet per year (88 to 102 million gallons per year) at the new well would cause groundwater levels in the immediate vicinity of the Project site to fall up to 31 feet below current levels. The drawdown simulated would generally decrease with distance away from the Project site. North of the Project site, Well 3B/3B Replacement, SVWD Monitor #15, SVWD TW-19, and Orchard Well experienced increased groundwater levels because the Project allows pumping in existing SVWD water supply wells to be reduced. South of the Project site, Well 11A, Well 11B, and Well 10 experienced between 9 to 18 feet of groundwater level decline. The Project scenario demonstrates that the Project would allow pumping to be redistributed, which would improve groundwater levels in existing Lompico/Butano aquifer wells and minimally cause drawdown in Lompico aquifer wells to the south (see Appendix E).

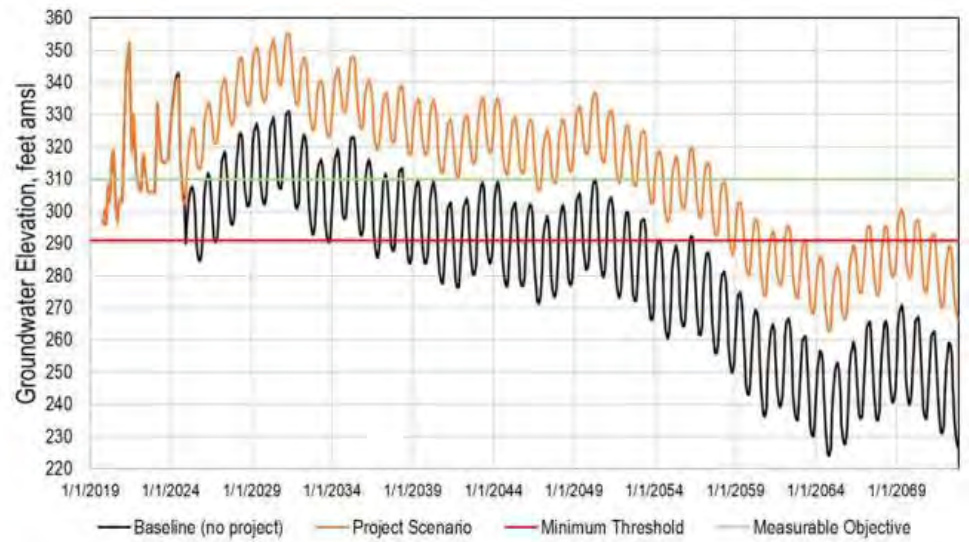
The Santa Margarita Groundwater Basin GSP includes representative monitoring points to reflect general aquifer conditions in the area, where numeric values for sustainable management criteria, including minimum thresholds, measurable objectives, and interim milestones, are set (SMGWA 2021). For each well that is a representative monitoring point, the GSP identifies a minimum threshold for chronic lowering of groundwater levels which is the groundwater elevation indicating a depletion of supply at a given location that may lead to undesirable results (SMGWA 2021).

In the groundwater modeling simulation conducted for the Project, four wells are representative monitoring points in the GSP (Well 11A, SVWD Monitor #15, SVWD TW-19, and Well 10). Figure 3 shows the simulated hydrographs for these wells without the implementation of the GSP projects and management actions for the Project and No Project scenarios. As shown on Figure 3, simulated groundwater elevations for these four wells remained above the minimum threshold prior to 2042 by when the SMGWA needs to achieve sustainability. After 2058, Well 11A simulated groundwater elevations fell below the minimum thresholds for a period of time for the Project scenario, and SVWD Monitor #15 simulated groundwater elevations fell below the minimum thresholds for a period of time for both the Project and No Project scenario, as shown on Figure 3. This is considered an undesirable result in the adopted Santa Margarita Groundwater Basin GSP. However, the GSP includes a range of projects and management actions to be implemented, which will allow for sustainability in the Basin by 2042. It is anticipated that projects will be implemented prior to 2042 to raise groundwater levels closer to measurable objectives and thus provide the buffer needed to prevent groundwater levels from falling below the minimum thresholds. Furthermore, in accordance with the standard operational practice that would be implemented as part of the Project, described above in Section 2.6, Operation and Maintenance, the Project would be operated so that it is consistent with the sustainable management criteria and avoids any undesirable results.

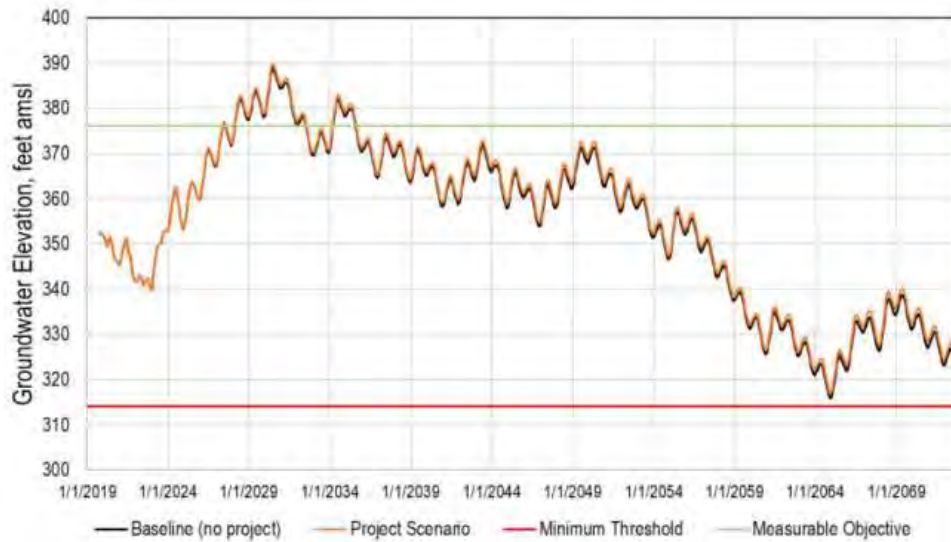
Thus, when projects and management actions in the GSP are implemented to reduce native groundwater extraction, and with adherence to the Project's standard operational practice, the Project would not be expected to cause groundwater levels at representative monitoring points to fall below minimum thresholds. Therefore, the Project would have a less-than-significant impact on groundwater supplies and sustainable management of the Santa Margarita Groundwater Basin.



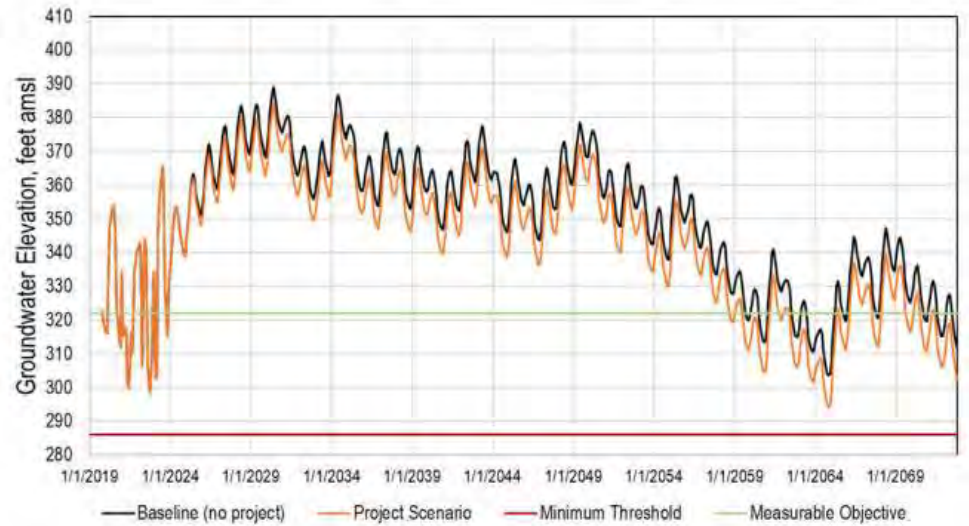
Well 11A (Lompico Aquifer)



Monitor #15 (Lompico and Butano Aquifers)



TW-19 (Butano Aquifer)



Well 10 (Lompico Aquifer)

SOURCE: M&A 2023b (see Appendix E)

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

i) **Result in substantial erosion or siltation on- or off-site?**

and

ii) **Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?**

Less-than-Significant Impact with Mitigation Incorporated. There are no natural drainage features on or near the Project site. The Project would not alter the course of a stream or river because the Project site contains no such features. As described in Chapter 2, Project Description, the Project would not result in a change in the impervious surface area on site, and no associated increase in stormwater runoff would occur. The Project would generally preserve the existing drainage pattern of the site and would include a connection to the existing storm drain infrastructure along Scotts Valley Drive.

Construction activities would entail grading, excavation, and other ground-disturbing activities, which could temporarily alter surface drainage patterns and increase the potential for erosion or siltation. Because the Project would disturb less than 1 acre, the Project would not be required to comply with the NPDES Construction General Permit, which would require implementation of BMPs and erosion control measures, thereby reducing the effects of construction activities on erosion and drainage patterns. However, implementation of MM HYD-1, described above, which would require implementation of BMPs and erosion control measures, would reduce the effects of construction activities on erosion and drainage patterns and ensure that erosion, siltation, and runoff are properly controlled. Therefore, Project construction would have a less-than-significant impact related to erosion, siltation, and runoff with implementation of MM HYD-1.

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?**

Less-than-Significant Impact. As discussed above, the Project would not result in an increase in impervious surface area on the site and post-construction stormwater runoff would not increase over existing conditions. Therefore, the Project would have a less-than-significant impact related to creation of runoff water in exceedance of stormwater drainage capacity or additional sources of polluted runoff.

iv) **Impede or redirect flood flows?**

No Impact. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the Project site is located within Zone X, an area of minimal flood hazard (FEMA 2012). Therefore, the Project would have no impact on flood flows.

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

No Impact. As indicated above, the Project site is not located within a flood hazard zone. Tsunamis and seiches do not pose hazards to the Project due to the inland location of the Project site and lack of nearby bodies of standing water. Therefore, the Project would have no impact related to risk of release of pollutants due to inundation in flood hazard, tsunami, or seiche zones.

e) *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Less-than-Significant Impact with Mitigation Incorporated. As indicated above, the Project site is located within the area subject to the Central Coast RWQCB Basin Plan, which designates beneficial uses for surface waters in the region and associated water quality objectives to fulfill such uses. As described above, the Project site is not located near a stream or river and would not alter water quality parameters established in the Basin Plan. Groundwater generated during initial development would be diverted to the on-site sanitary sewer connection and discharged in accordance with a sewer discharge permit from the City of Scotts Valley. Discharge of final development and testing groundwater would be diverted to a stormwater drain inlet on the west side of Scotts Valley Drive and just east of the northeast corner of the property. All water discharged to the storm drain would comply with the requirements of the SVWD's NPDES Permit for Drinking Water System Discharges to Waters of the United States (Order WQ 2014-0194-DWQ, General Order No. CAG140001) issued by the SWRCB. In addition, implementation of erosion-control BMPs during construction (see MM HYD-1 under Question 3.10a) would prevent erosion and thereby protect overall water quality. The Project would not result in an increase in impervious surface area on site and therefore would not increase runoff and associated pollutants. Furthermore, Project operation would not involve ground disturbance that would contribute to runoff of sediment or sediment-bound pollutants, and the Project does not involve septic systems, pet parks, agricultural land, or other land uses commonly associated with high concentrations of nutrients, indicator bacteria, or chemical toxicity. Thus, the Project would not conflict with or obstruct implementation of the Basin Plan.

As previously discussed, the Project site overlies the Santa Margarita Groundwater Basin. The SMGWA, consisting of representatives from the SVWD, SLVWD, and County of Santa Cruz, oversees the groundwater management activities of the Santa Margarita Groundwater Basin area. The GSP governing the Santa Margarita Groundwater Basin was adopted by the SMGWA Board of Directors in November 2021 and approved by the California Department of Water Resources (DWR) in April 2023. The Project includes a standard operational practice to ensure that it would be consistent with the sustainable management criteria and avoid any undesirable results identified in the approved GSP for the Santa Margarita Groundwater Basin, and in any future revisions to the GSP. To avoid any undesirable results in the Santa Margarita Groundwater Basin and to maintain groundwater basin sustainability, minimum threshold groundwater elevations identified in the GSP at representative monitoring points close to the Project cannot be exceeded during operation of the Project. If groundwater elevations approach minimum thresholds in representative monitoring points close to the Project, the SVWD would need to redistribute pumping amongst its other wells or implement conjunctive use or managed recharge projects. Thus, the Project would not conflict with or obstruct implementation of the GSP.

Therefore, the Project would have a less-than-significant impact related to conflicts with a water quality control plan or Sustainable Groundwater Plan.

3.11 Land Use and Planning

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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"/>
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 type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The Project site is within the City of Scotts Valley in a developed commercial and residential area, surrounded by urban/suburban development. The Project site has a General Plan land use designation of Service Commercial and is within the Service Commercial zoning district. Commercial land uses are located northeast and southwest of the Project site. Rural Residential and High-Density Residential land uses are located northwest of the Project site across Grace Way. Service Commercial land uses are located southeast of the Project site across Scotts Valley Drive. As noted in Section 2.7, Project Approvals, the Project would be exempt from City building and zoning ordinances under California Government Code Section 53091(d) and (e), since the Project relates exclusively to the production, generation, and transmission of water supplies.

a) *Would the project physically divide an established community?*

No Impact. The Project would not include any aboveground linear features that would have the potential to serve as barriers that could physically divide an established community. The Project would include construction of a groundwater well facility on a developed Project site which is surrounded by development. Utility improvements would include raw water, sewer, storm drain lateral connections to the existing lines that run beneath Scotts Valley Drive adjacent to the Project site, which would be below ground and would not have the potential to divide an established community. Therefore, the Project would have no impact related to physical division of an established community.

b) *Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

No Impact. Pursuant to California Government Code Section 53091(d) and (e), the building and zoning ordinances of a county or city do not apply to the location or construction of facilities for the production, storage, or transmission of water supplies. As the Project would entail construction of a new groundwater well facility and relates exclusively to the production, generation, and transmission of water supplies, the building and zoning ordinances of the City of Scotts Valley would not apply to the Project. Nonetheless,

Table 9 includes an analysis of the Project’s potential for conflicts with specific objectives, policies, and actions contained in the Scotts Valley General Plan relevant to the Project for information purposes.

Table 9. Analysis of the Project’s Potential to Conflict with the Scotts Valley General Plan

General Plan Objective, Policy, or Action	Project Consistency
Objective PS0-558. Promote adequate water service for residents of the Planning Area.	No Conflict. The Project would provide redundancy and allow for increased extraction capacity to meet SVWD customer water demand and strengthen the SVWD’s ability to meet potential demand to deliver water to neighboring agencies under drought or emergency conditions in support of regional water supply planning efforts.
Policy PSP-559. The City shall cooperate with the water districts which serve the Planning Area and with owners of private wells to promote water service, infrastructure improvements, and sound resource management.	No Conflict. The Project would provide groundwater infrastructure improvements in support of SVWD water service and would be operated in a manner that is consistent with the Santa Margarita Groundwater Basin GSP.
Action PSA-563. Participate in a basin-wide groundwater management program. Consult with the Scotts Valley and San Lorenzo Valley Water Districts to determine the effects of proposed private well development on basin-wide groundwater management.	No Conflict. The Project would be consistent with the sustainable management criteria and avoid any undesirable results identified in the adopted Santa Margarita Groundwater Basin GSP and in any future revisions to the GSP, as described in the Project’s standard operational practice, in support of achievement and maintenance of groundwater basin sustainability.

Source: City of Scotts Valley 1994d.

Therefore, the Project would have no impact related to causing a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.12 Mineral Resources

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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"/>
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"/>

Setting

The California Geological Survey is responsible for classifying land into Mineral Resource Zones (MRZs) under the Surface Mining and Reclamation Act (SMARA) based on the known or inferred mineral resource potential of that land. Mineral resources lands are classified based on geologic and economic factors without regard to existing land use and ownership (CGS 2021). The following MRZ categories are used to classify land:

- MRZ-1: Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.
- MRZ-2: Areas where geologic information indicates the presence of significant mineral resources.
- MRZ-3: Areas containing known or inferred construction aggregate resources of undetermined mineral resource significance.
- MRZ-4: Areas where available geologic information is inadequate to assign to any other MRZ category.

The mineral lands classification of the Project site is MRZ-1 (County of Santa Cruz 2022).

a) ***Would the project 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?***

and

b) ***Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?***

No Impact. As indicated above, the mineral lands classification of the Project site is MRZ-1, indicative of no significant mineral deposits (City of Scotts Valley 1994; County of Santa Cruz 2022). Therefore, the Project would have no impact on the availability of known mineral resources of state, regional, or local importance.

3.13 Noise

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

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Acoustic Fundamentals

Acoustics is the scientific study that evaluates perception, propagation, absorption, and reflection of sound waves. Sound is a mechanical form of radiant energy, transmitted by a pressure wave through a solid, liquid, or gaseous medium. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise; consequently, the perception of sound is subjective in nature, and can vary substantially from person to person. The loudness of sound perceived by the human ear depends primarily on the overall sound pressure level and frequency content of the sound source. The human ear is not equally sensitive to loudness at all frequencies in the audible spectrum. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed. There is a strong correlation between the way humans perceive sound and A-weighted decibels (dBA). For this reason, the dBA can be used to evaluate community response to noise from the environment, including noise from transportation and stationary sources. Sound levels expressed as dB in this section are A-weighted sound levels, unless noted otherwise.

As acoustic energy spreads through the atmosphere from the source to the receiver, noise levels attenuate (decrease) depending on ground absorption characteristics, atmospheric conditions, and the presence of physical barriers (e.g., walls, building façades, berms). Noise generated from mobile sources generally attenuates at a rate of 3 dB (typical for hard surfaces, such as asphalt) to 4.5 dB (typical for soft surfaces, such as grasslands) per doubling of distance, depending on the intervening ground type. Stationary noise sources spread with more spherical dispersion patterns that attenuate at a rate of 6 dB to 7.5 dBA per doubling of distance for hard and soft sites, respectively (Caltrans 2020a). Atmospheric conditions such as wind speed, turbulence, temperature gradients, and humidity may additionally alter the propagation of noise and affect levels at a receiver. Furthermore, the presence of a large object (e.g., barrier, topographic features, or intervening building façades) between the source and the receptor can provide significant attenuation of noise levels at the receiver.

Noise Descriptors

The intensity of environmental noise levels can fluctuate greatly over time and as such, several different descriptors of time-averaged noise levels may be used to provide the most effective means of expressing the noise levels. The selection of a proper noise descriptor for a specific source depends on the spatial and temporal distribution, duration, and fluctuation of both the noise source and the environment near the receptor(s). Noise descriptors most often used to describe environmental noise are defined as follows:

- **L_{max} (Maximum Noise Level):** The maximum instantaneous noise level during a specific period of time.
- **L_n (Statistical Descriptor):** The noise level exceeded “n” percent of a specific period of time. For example, L_{50} is the median noise level, or level exceeded 50% of the time.
- **L_{eq} (Equivalent Noise Level):** The average noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value is calculated, which is then converted back to dBA to determine the L_{eq} . In noise environments determined by major noise events, such as aircraft over-flights, the L_{eq} value is heavily influenced by the magnitude and number of single events that produce the high noise levels.
- **L_{dn} (Day-Night Average Noise Level):** The 24-hour L_{eq} with a 10-dBA “penalty” for noise events that occur during the noise-sensitive hours between 10 p.m. and 7 a.m. In other words, 10 dBA is “added” to noise events that occur in the nighttime hours, and this generates a higher reported noise level when determining compliance with noise standards. The L_{dn} attempts to account for the fact that noise during this specific period of time is a potential source of disturbance with respect to normal sleeping hours.
- **CNEL (Community Noise Equivalent Level):** The CNEL is similar to the L_{dn} described above, but with an additional 5-dBA “penalty” added to noise events that occur during the noise-sensitive hours between 7 p.m. and 10 p.m., which are typically reserved for relaxation, conversation, reading, and television. When the same 24-hour noise data are used, the reported CNEL is typically approximately 0.5 dBA higher than the L_{dn} .

Community noise is commonly described in terms of the ambient noise level which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent sound level (L_{eq}) which corresponds to the steady-state A-weighted sound level containing the same total energy as the time-varying signal over a given time period (usually 1 hour). The L_{eq} is the foundation of the composite noise descriptors such as L_{dn} and CNEL, as defined above, and shows very good correlation with community response to noise. Use of these descriptors along with the maximum noise level occurring during a given time period provides a great deal of information about the ambient noise environment in an area.

Groundborne Noise and Vibration

Vibration is similar to noise in that it is a pressure wave traveling through an elastic medium involving a periodic oscillation relative to a reference point. Vibration is most commonly described in respect to the excitation of a structure or surface, such as in buildings or the ground. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. The strength of vibration signals (e.g., amplitude, magnitude, scale, etc.) are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal, or the quantity of displacement measured from peak to trough of the vibration wave. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a period of 1 second. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (FTA 2018). PPV and RMS vibration velocity are nominally described in terms of inches per second (in/sec).

Existing Noise Environment

The Project site is located on a partially developed parcel, approximately one-third of an acre in size, adjacent to the northwestern right-of-way of Scotts Valley Drive. The Project site is zoned as Service Commercial and is surrounded by rural residential and high-density residential to the northwest across Grace Way, Service Commercial uses adjoining the site to the northeast and southwest, with additional Service Commercial land uses southeast of the site across Scotts Valley Drive.

The Scotts Valley General Plan identifies a number of existing noise sources which influence the ambient noise environment within the City. The identified noise sources in the area include emergency service vehicles, landscaping equipment, occasional aircraft overflights, and individual unspecified local noise sources contributing to the cumulative noise levels. However, the most dominant noise source is transportation noise, primarily generated from vehicular traffic on the local and regional roadway network (i.e., Scotts Valley Drive and Highway 17).

Existing Nearby Noise-Sensitive Land Uses

Noise-sensitive land uses generally include those uses where exposure to noise would result in adverse effects, as well as uses where quiet is an essential element of the intended purpose. The Scotts Valley General Plan identifies health care facilities, churches, libraries, schools, and retirement homes as noise-sensitive land uses that are typically given special attention to achieve protection from excess noise. Additionally, residential dwellings and other facilities where people are sleeping are a primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels, and the potential for interrupting periods of rest and relaxation.

Existing noise-sensitive land uses nearest the Project include Pentecostals of Santa Cruz located adjacent to the southwestern project boundary, multi-family residential adjacent to the northwestern project site boundary, single-family residential to the northwest across Grace Way, and multi-family residential to the north across Grace Way. Other noise-sensitive land uses in the vicinity of the Project are single-family and multi-family residences generally located further to the north and northwest, and St. Philip the Apostle Episcopal Church further to the southwest.

Existing Ambient Noise Survey

To characterize the existing ambient noise environment at the Project site and in the immediate vicinity, and to establish baseline noise conditions against which to compare proposed Project noise levels, sound pressure level measurements were conducted from June 30, 2023, to July 05, 2023. All noise measurements were performed in accordance with American National Standards Institute (ANSI) and American Standards for Testing and Measurement (ASTM) guidelines, at three locations on the Project site.

Noise measurements were performed using Larson Davis Laboratories Model 831, Type 1 precision integrating sound level meters (SLMs). Field calibrations were performed on the SLMs with an acoustic calibrator before and after the measurements. All instrumentation components, including microphones, preamplifiers and field calibrators have laboratory certified calibrations traceable to the National Institute of Standards and Technology (NIST). The equipment used meets all pertinent specifications of the ANSI for Type 1 SLMs (ANSI S1.4-1983 [R2006]). Meteorological conditions during the monitoring periods were fair with temperatures ranging from 54°F to 89°F, average winds from 0 to 8 miles per hour, and clear to partly cloudy skies during the survey period. No precipitation was experienced during the monitoring periods. Table 10 summarizes the ambient noise measurements.

Table 10. Summary of Ambient Noise Measurements

Site	Location	Date	L _{dn}	Average Noise Levels, dBA (Maximum Hourly Noise Levels, dBA)					
				Daytime			Nighttime		
				L _{eq}	L _{max}	L ₅₀	L _{eq}	L _{max}	L ₅₀
Long-Term Monitoring									
LT-1	Western portion of Project site	6/30/23	53.3	50.5 (51.5)	63.5 (69.3)	49.5 (50.8)	45.8 (52.0)	59.8 (77.2)	40.2 (48.0)
		7/1/23	59.3	49.3 (51.1)	62.4 (71.4)	48.1 (49.7)	53.3 (62.5)	59.8 (90.4)	39.4 (44.4)
		7/2/23	51.5	49.4 (51.9)	63.5 (72.2)	48.0 (49.2)	49.3 (51.0)	67.0 (72.6)	46.9 (48.5)
		7/3/23	51.9	50.9 (51.5)	63.7 (67.9)	49.9 (50.8)	49.5 (51.1)	65.8 (66.3)	47.5 (50.0)
		7/4/23	59.0	51.0 (56.5)	66.5 (82.2)	47.3 (49.0)	48.2 (48.9)	65.5 (72.1)	46.3 (48.0)
		7/5/23	51.0	51.3 (52.0)	64.2 (70.2)	50.5 (51.1)	-	-	-
Short-Term Monitoring									
ST-1	Northwestern portion of Project site	7/5/23	-	50.5	58.3	50.0	-	-	-
ST-2	Southern portion of Project site (Traffic Calibration)	7/5/23	-	68.3	81.2	65.9	-	-	-

Source: Dudek 2023.

Notes: dBA = A-weighted decibels; L_{dn} = Day-Night noise level; L_{eq} = energy-average equivalent noise level; L_{max} = maximum noise level; L₅₀ = sound level exceeded 50% of the period.

Local Policies, Regulations, and Ordinances

Scotts Valley General Plan

The Scotts Valley General Plan Noise Element discusses the noise environment within the City and presents goals, policies, and actions to help guide planning decisions and protect against exposure to excessive noise. The Scotts Valley Noise Element does not contain specific noise level thresholds for the evaluation of noise levels within the City that are associated with commercial/utility stationary sources such as those associated with the Project; but establishes allowable noise level increases for which a project must not exceed. The Scotts Valley noise increase standards are shown in Table 11. The Scotts Valley General Plan does not contain guidance or noise level standards for noise generated by construction activities. For stationary (non-transportation) noise sources, such as those associated with the Project, the Scotts Valley General Plan does not contain applicable criteria; however, throughout the objectives and policies of the General Plan, the City uses 60 dBA L_{dn} as a threshold for requiring an acoustical analysis for a sensitive use, land use compatibility of proposed new residential, and the inclusion of noise-attenuating features where outdoor recreation areas, especially those associated with new residential, where the ambient level exceeds 60 dBA L_{dn}. Therefore, while not directly applicable to the Project, 60 dBA L_{dn} is included as noise level standard for evaluation of the Project impacts.

Table 11. Noise Increase Standards

Proposed New Use/ Location of dBA Reading	Maximum Noise Increase in (L _{dn}) dBA Adjacent to Existing:			
	Sensitive	Residential	Commercial	Industrial
Sensitive				
At Property Line	3	5	5	5
50 feet from Property Line	3	3	--	--
Residential				
At Property Line	3	5	5	5
50 feet from Property Line	3	3	--	--
Commercial				
At Property Line	3	5	5	5
50 feet from Property Line	3	3	--	--
Industrial				
At Property Line	3	5	5	7
50 feet from Property Line	3	3	--	--

Source: City of Scotts Valley 1994b.

Scotts Valley Municipal Code

The City establishes qualitative guidance for the control and enforcement of its noise environment within Chapter 5.17 of the Scotts Valley Municipal Code, as presented below. The noise restrictions presented in the Scotts Valley Municipal Code do not address noise generated from construction activities.

5.17.030 - Exemptions.

- A. The proper use of a siren or other alarm by a police, fire, or authorized emergency vehicle as defined in the California Vehicle Code. Likewise, any stationary fire alarm operated by the fire district of the city is exempt from the provisions of this chapter;
- B. The proper use of emergency generators by any privately owned service facility, up to a maximum of 75 dBA measured at the property line, necessary to maintain service essential to the public health, safety or welfare;
 - 1. Noise generated by city-permitted construction activities occurring during authorized construction hours as set forth elsewhere in this Code.

5.17.040 - Violations and Penalties.

- A. No person shall make, cause, suffer, or permit to be made any offensive noises which disturb or annoy people of ordinary sensitiveness or which are so harsh or so prolonged or unnatural or unusual in their use, time or place as to cause physical discomfort to any person, and which are not necessary in connection with any lawfully conducted activities.
- B. No person shall, between the hours of ten p.m. and eight a.m. [10:00 p.m. to 8:00 a.m.], make, cause, suffer, or permit to be made any offensive noise within the vicinity of any building or place regularly used for sleeping purposes.

Impact Discussion

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

Less-than-Significant Impact with Mitigation Incorporated. Potential noise impacts associated with the Project were calculated and analyzed based on Project construction and operations information; information contained in the transportation analysis and air quality analysis prepared for the Project; and data obtained during on-site noise measurements. Observations made during the site survey along with land use information and aerial photography were used to determine potential locations of sensitive receptors near the Project. The following discussion evaluates the Project's potential to generate a substantial temporary increase in ambient noise levels during construction due to on-site construction activities as well as construction traffic, or a substantial permanent increase in ambient noise levels during operation.

On-Site Construction

The Project would generate noise associated with the operation of heavy construction equipment and construction-related activities in the vicinity of the Project site. Construction noise levels in the vicinity of the Project site would fluctuate depending on the particular type, number, and duration of usage for the various pieces of equipment, as well as the relative exposure and distance between the source and receptors. The effects of construction noise depend largely on the types of construction activities occurring on any given day, noise levels generated by those activities, distances to noise-sensitive receptors, and the existing ambient noise environment in the vicinity of the receptors. Construction is planned to occur in several discrete stages, with each stage varying the required equipment mix, operations, and the associated noise. These stages alter the characteristics of the noise environment on the Project site and in the surrounding community for the duration of construction.

The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) and Federal Transit Administration (FTA) have measured and documented maximum construction noise levels and operational characteristics for a wide range of construction machinery, which were compiled and used to develop reference noise levels that are summarized in Table 12. These operational characteristics of heavy construction equipment are additionally typified by short periods of full-power operation followed by periods of operation at lower power, idling, or powered-off conditions. These characteristics are accounted for through the application of typical "acoustical usage factors" (operational percentage) to the reference maximum noise levels.

Table 12. Typical Construction Equipment Noise Emission Levels

Equipment Description	Acoustical Use Factor (%)	L _{max} at 50 feet (dBA, slow) ¹
Auger Drill Rig	20	85
Backhoe	40	80
Compressor (air)	40	80
Concrete Mixer Truck	40	85
Concrete Saw	20	90
Crane	16	85
Dozer	40	85
Dump Truck	40	80
Excavator	40	85
Flat Bed Truck	40	84
Front End Loader	40	80
Generator	50	82
Grader	40	85
Jackhammer ²	20	85
Mounted Impact Hammer (hoe ram) ²	20	90
Paver	50	85
Pneumatic Tools	50	85
Pumps	50	77
Roller	20	85
Tractor	40	84
Vacuum Excavator (Vac-truck/Vactor)	40	85

Sources: DOT 2006; FTA 2018.

Notes: L_{max} = maximum noise level; dBA = A-weighted decibels.

¹ All equipment fitted with a properly maintained and operational noise-control device, per manufacturer specifications.

² Impulsive/impact device.

Construction-related noise effects were assessed with respect to nearby noise-sensitive receptors and their relative exposure, based on application of reference noise level data. The construction phases and individual equipment mix for each of the components discussed below were based on the construction information presented in Chapter 2, Project Description, and Section 3.3, Air Quality. The construction phases for the Project include mobilization, demolition, site preparation, grading, well drilling, well development and testing, building construction, paving, architectural coating utility/conduit connections and demobilization.

The loudest mix of equipment associated with construction of new well facility would occur during the well-drilling phase; with the building construction and demolition construction phases being marginally quieter. The well-drilling phase would incorporate the use of a crane, forklift, tractor, drill rig, pumps, generator, air compressor and miscellaneous other construction equipment; with a resulting noise level of 88.5 dBA L_{eq} at a distance of 40 feet; the distance from the geographic center of the construction site to the nearest noise-sensitive land uses, the multi-family residential to the west. As described in Chapter 2, Project Description, Project construction would include implementation of BMPs to limit construction activities to daytime hours when feasible, and install a 24-foot-tall temporary noise barrier surrounding the well construction area during the well-drilling phase.

As indicated above, the City has not established a quantitative threshold criterion for the assessment of construction noise; however, the FTA Transit Noise and Vibration Impact Assessment Manual provides recommended thresholds of 80 dBA L_{eq} (8-hour) during daytime hours (7:00 a.m. to 10:00 p.m.) and 70 dBA L_{eq} (8-hour) during the nighttime hours (10:00 p.m. to 7:00 a.m.) for residential land uses. Even with the proposed 24-foot-tall temporary noise barrier, the Project's unmitigated construction noise levels due to on-site construction activities would exceed both the daytime and nighttime FTA construction noise level thresholds at the nearest noise-sensitive residential land use to the northwest (at a distance of 40 feet). Therefore, construction noise associated with the Project would be a potentially significant impact.

Application of MM NOI-1 would reduce construction noise levels and minimize disruption at nearby noise-sensitive land uses through limitation of construction operational hours; selection of construction equipment using "quiet" technologies where possible; use of acoustical enclosures, barriers, shrouds, and mufflers; and through appointing a disturbance coordinator for community outreach and to receive and proactively address Project-generated construction noise concerns. Therefore, with incorporation of MM NOI-1, Project construction would have a less-than-significant impact related to the generation of a substantial temporary increase in ambient noise levels in excess of applicable standards.

MM NOI-1: Construction Noise. The Scotts Valley Water District and its contractor shall implement appropriate best management practices (BMPs) to reduce construction noise levels emanating from construction activities with a primary goal to minimize disruption and annoyance at existing noise-sensitive receptors in the Project vicinity. A detailed construction noise reduction plan shall be developed identifying the schedule for major noise-generating construction activities and procedures for coordination with the owner/occupants of nearby noise-sensitive land uses, so that construction activities can be scheduled to minimize noise disturbances. The Project's contractor shall implement, but would not be limited to, the following measures related to construction noise:

- Restrict construction activities and use of equipment that have the potential to generate significant noise levels (e.g., use of concrete saw, mounted impact hammer, jackhammer, rock drill, etc.) to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, and between 8:00 a.m. and 6:00 p.m. on Saturdays and Sundays.
- Construction activities requiring operations continuing outside of daytime hours (e.g., borehole drilling) shall locate noise-generating equipment as far as feasibly possible from noise-sensitive receptors.
- Construction equipment and selection thereof shall make use of quiet technologies where such technologies or models exist.
- Maximum physical separation, as far as practicable, shall be maintained between construction equipment and adjacent noise-sensitive land uses/receptors.
- Construction equipment and vehicles shall be fitted with efficient, well-maintained mufflers that reduce equipment noise emission levels at the Project site. Internal-combustion-powered equipment shall be equipped with properly operating noise-suppression devices (e.g., mufflers, silencers, wraps) that meet or exceed the manufacturer's specifications. Mufflers and noise suppressors shall be properly maintained, tuned, and inspected on a routine basis to ensure proper fit, function, and minimization of noise.

- Impact tools shall have the working area/impact area shrouded or shielded whenever possible, with intake and exhaust ports on power equipment muffled or suppressed and directed away from nearby noise-sensitive receptors. This may necessitate the use of temporary or portable, application-specific noise shields, enclosures, or barriers.
- Site support equipment such as pumps, generators, air compressors and other stationary noise-generating equipment shall be located within acoustically treated enclosures, shrouded, or shielded to prevent the propagation of sound in the direction of nearby noise-sensitive receptors in the surrounding areas, regardless of construction hours. Acoustical enclosures, shrouds, or temporary barriers shall meet or exceed a sound transmission class (STC) rating of 27 or greater.
- Construction equipment shall not be idled for extended periods of time (i.e., 5 minutes or longer) in the immediate vicinity of noise-sensitive receptors or when not foreseeably in use.
- The contractor shall designate and identify a “disturbance coordinator” who will be the responsible point of contact for construction noise concerns or complaints. The disturbance coordinator’s contact phone number along with the appropriate Scotts Valley Water District contact information shall be located on a sign, conspicuously placed and clearly visible to the public. The disturbance coordinator will determine the cause of the noise complaint and respond to or implement corrective action within 48-hours, to resolve the issue(s) which the complaint is regarding. All complaints shall be logged, noting the date, time, issuing party’s name and contact information, the nature of the complaint, and any corrective action taken to resolve the issue.

Construction Traffic

In addition to heavy-duty construction equipment noise, the movement of equipment, haul trucks, and workers to and from the Project site during construction would generate temporary traffic noise along access routes to the site, primarily Scotts Valley Drive. The transport of heavy-duty construction equipment onto the Project site would be minimized during construction by keeping construction equipment staged on site for individual construction phases when possible. For this reason, the movement of heavy-duty construction equipment is expected to be minimal. Haul trucks and the construction worker commutes are expected to occur on a daily basis, with the majority of construction activities taking place from 7:00 a.m. through 7:00 p.m. Monday through Friday, and between 8:00 a.m. and 6:00 p.m. on Saturdays and Sundays for most construction phases, with the exception of borehole drilling operations, which would operate 24 hours per day over an approximately 3-month period. There are an estimated eight haul truck trips associated with the overall Project, with two haul truck trips occurring during each of the following construction stages, mobilization, demolition, drilling, and demobilization. Based on information provided, during peak construction operations the Project would have between two and four vendor trips per day and between four and ten trips associated with construction worker commute trips; with a total number of non-heavy truck trips of 104 trips over the course of Project construction.

Based on the ambient noise increase criteria contained in the Scotts Valley General Plan, the Project would be considered to have a significant impact if it would result in an increase of 3 to 7 dBA L_{dn} depending on the land use of the proposed source parcel, the land use of the adjacent receptor parcel, and the location on the proposed source parcel where the noise measurement is performed. For the Project to result in an increase of 3 dB, the average daily trips on a roadway would need to result in double the existing traffic volume. Given the traffic volumes available from the County of Santa Cruz

(SCCRTC 2022) for Scotts Valley Drive (16,542 ADT), the maximum haul truck trips and construction worker/vendor trips to the Project site, traffic generated by the construction of the Project would not cause a doubling of average daily trips in the immediate area. As a result, the noise level increases along Project-area roadways used to reach the site would be less than 3 dBA. Therefore, the Project's construction traffic would have a less-than-significant impact related to the generation of a substantial temporary increase in ambient noise levels in excess of applicable standards.

Long-Term Operation

As mentioned, long-term operation and maintenance of the new well would be consistent with ongoing SVWD groundwater well operations in the City and surrounding unincorporated areas. The proposed well has a design capacity of 600 gpm and is anticipated to pump approximately 250 to 280 acre-feet per year. The well would operate on an as-needed basis, which could result in short pump operational intervals or continuous operation with pumping volume regulated through the well control systems. Sound sources associated with the proposed groundwater well would be relatively minimized in comparison to traditional above-grade pump and motor configurations due to the use/specification of a submersible pump and motor assembly, which would substantially reduce noise levels associated with the pump and motor to well below ambient noise levels during normal operation. Additional sound sources associated with the proposed well system could include semi-impulsive clicking sounds from pressure switches and sensors, high-frequency sounds from the VFD controller, opening and closing of various valves, and other control system components. These sound sources would be relatively quiet and located within the control building, which would further reduce the sound levels from the well system components. Additionally, the proposed Project design incorporates an alarm indicator for the VFD system, which would produce less than 60 dB on the inside of the control building; and, if deemed necessary, additional acoustically rated noise-reducing baffles, louvers, or treatments would be installed to attenuate noise produced within the control building to appropriate levels.

Ongoing, long-term activities associated with the groundwater well would also include routine maintenance such as visual inspections of the wellhead, casing, pump, and other associated equipment; water quality testing; pump performance tests; lubrication; electrical connection inspections; and replacement of worn-out components as required. These operations, maintenance, and testing activities would be performed within the well pump control building, which would reduce noise levels produced from the operations and maintenance activities within the control building to appropriate exterior noise levels. With the proposed Project design locating Project equipment within the pump control building and incorporating noise-attenuating treatments as necessary to reduce exterior noise levels from interior noise sources, long-term operations of the Project could range from approximately 31 dB for the VFD motor and pump at a distance of 3 feet, to approximately 55 dB for short-term sources such as the closing of a ball valve, switch, or other equipment associated with the system (Fullerton 2014). The pump control building would be expected to provide between 15 and 30 dBA interior-to-exterior noise-level reduction (Caltrans 2020a); with a resulting exterior noise source level below 40 dBA L_{dn} at a distance of 3 feet from the building. Therefore, the Project operational noise levels would be less than the 60 dBA L_{dn} for residential outdoor activity areas, would be below exterior ambient noise levels and would not be anticipated to increase ambient noise levels in the Project vicinity by the Scotts Valley General Plan threshold of 5 dBA L_{dn} . Therefore, Project operation would have a less-than-significant impact related to the generation of a substantial permanent increase in ambient noise levels in excess of applicable standards.

Long-Term Off-Site Traffic

Long-term operation of the Project would result in a nominal amount of additional traffic on the roadway network, as it is expected to consist primarily of maintenance activities. Routine maintenance of the facility is expected to consist of approximately five weekly visits to the site by SVWD personnel in small trucks to check on the facility’s operations and perform on-going maintenance activities. There may also be the need for a “Vactor” truck or other maintenance equipment to access the site, however those operations would be infrequent and typically short in duration. Due to the limited number of trips associated with the Project and the anticipated duration of maintenance activities, the Project would not result in a noise level of 60 dBA Ldn. And as previously discussed, the Project would need to result in a doubling of roadway traffic volumes for there to be a significant impact associated with traffic noise. Therefore, the Project’s operational traffic would have a less-than-significant impact related to the generation of a substantial permanent increase in ambient noise levels in excess of applicable standards.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. Groundborne noise and vibration sources are anticipated to include a borehole drill rig and heavy equipment (e.g., excavator, tractors, vibratory roller, etc.). Groundborne vibration impacts were qualitatively assessed based on existing reference documentation (e.g., vibration levels produced by specific construction equipment operations), through the application of California Department of Transportation (Caltrans) methodology outlined within the *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020) and the relative distance to potentially sensitive receptors from a given vibration source. Representative groundborne vibration levels for various types of construction equipment, developed by FTA, are summarized in Table 13.

Table 13. Representative Vibration Levels for Construction Equipment

Equipment	PPV at 25 feet (in/sec) ^{1,2}	Approximate Lv (VdB) at 25 feet ³
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large Bulldozer	0.089	87
Caisson Drilling	0.089	87
Heavy-Duty Trucks (Loaded)	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Source: FTA 2018, Caltrans 2020b.

Notes:

- ¹ Where PPV is the peak particle velocity.
- ² Vibration levels can be approximated at other locations and distances using the above reference levels and the following equation: $PPV_{equip} = PPV_{ref} (25/D)^{1.5}$ (in/sec); where “PPV ref” is the given value in the above table, “D” is the distance for the equipment to the new receiver in feet.
- ³ Where Lv is the RMS velocity expressed in vibration decibels (VdB), assuming a crest factor of 4.

Use of a vibratory roller during the paving portions of well installation would produce vibration levels exceeding the Caltrans threshold of 0.3 in/sec PPV at distances less than 15 feet from the vibratory roller. Aside from the vibratory roller, the borehole drill rig and heavy equipment would produce vibration levels exceeding the Caltrans 0.3 in/sec PPV threshold at distances less than 9 feet. Based on the proposed site plan and distances to nearby sensitive receptors, it is unlikely that Project construction activities using

heavy construction equipment would occur within 15 feet of existing sensitive receptors, nor would the borehole drill rig operations occur within 9 feet of existing sensitive receptors. As such, Project construction would not generate significant groundborne noise and vibration levels. Therefore, the Project would have a less-than-significant impact related to generation of groundborne noise and vibration.

- c) ***For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

No Impact. During the noise monitoring survey, no aircraft overflights were observed. The Project area is located approximately 6.3 miles east of the private Bonny Doon Village Airpark and 14.5 miles northwest of the Watsonville Municipal Airport. The Project site is not located within any currently adopted 60 or 65 dB CNEL/L_{dn} airport noise contours. As such, noise associated with existing and future aircraft operations in the area is not a substantial contributor to the ambient noise environment and would not result in the exposure of people to excessive aviation/aircraft noise levels. Therefore, the Project would have no impact related to exposure of people to excessive aviation noise levels.

3.14 Population and Housing

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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"/>
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"/>

Setting

The City of Scotts Valley is within Santa Cruz County, which is the 25th most populous county in the State of California. The City contains approximately 4% of the population and housing units in Santa Cruz County. In 2020, the City had a population of 11,693 and Santa Cruz County as a whole had a population of 271,233. According to regional growth forecasts by AMBAG (AMBAG 2022), the City’s population is projected to grow to 12,010 in 2045, which would be an average annual growth rate of 0.1%. The City’s population growth is expected to grow at a slower rate than the County as a whole, which is projected to grow to 294,967 in 2045—an average annual growth rate of 0.4%.

The City had 4,739 housing units in 2020, while the County had 106,135 housing units. In 2045, the City is projected to have 4,930 housing units (an increase of approximately 0.2% per year) and the County is projected to have 113,797 housing units (an increase of approximately 0.3% per year) (AMBAG 2022).

In 2020, the City had 10,109 jobs, compared to 140,002 in the County as a whole. In 2045, AMBAG projects that the City will have 10,797 jobs and the County will have 153,261 jobs, representing an approximate average annual growth rate of 0.3% and 0.4%, respectively (AMBAG 2022).

- a) **Would the project 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)?**

Less-than-Significant Impact. The Project would not include the construction of new homes or businesses or extend new roads or other infrastructure into undeveloped areas. The Project would support the SVWD’s ability to meet existing customer water demand and regional water supply and drought resiliency planning efforts. Given the modest level of construction required for the Project, it is reasonable to anticipate that workforce requirements for construction could be met through the local labor force within the region. Long-term operation and maintenance of the Project would be performed by existing SVWD staff and would not generate new employment. Therefore, the Project would have a less-than-significant impact on population growth.

- b) **Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

No Impact. The Project site does not contain existing housing, so it would not displace existing people or housing or necessitate the construction of replacement housing. Therefore, the Project would have no impact related to displacement of existing people or housing.

3.15 Public Services

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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XV. PUBLIC SERVICES – Would the project:

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

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Fire Protection

The Scotts Valley Fire Protection District (SVFPD) provides fire protection services, ranging from basic life support to vegetation management, to the City and its surrounding unincorporated areas. The SVFPD serves nearly 20,000 residents within a 24-square-mile area. The SVFPD operates two fire stations, both within the Scotts Valley city limits. Station 1 is located at 7 Erba Lane (approximately 0.8 miles southwest of the Project site), and Station 2 is located at 251 Glenwood Drive (approximately 0.7 miles northeast of the Project site). The SVFPD has 28 full-time employees, one part-time, and 7 paid-call firefighters, who provide a variety of services which include fire suppression, emergency medical services, administration, technical rescue, hazardous materials mitigation, public education, fire investigation, and fire prevention. Daily emergency response consists of seven firefighters and one Battalion Chief. The SVFPD also has mutual aid agreements with neighboring fire suppression organizations (Santa Cruz LAFCO 2021b; SVFPD 2023). From 2015 to 2020, the SVFPD responded to approximately 13,000 calls, with an annual call average of 2,122 calls per year, and an average response time of approximately 5 minutes (Santa Cruz LAFCO 2021b).

Police Protection

The Scotts Valley Police Department (SVPD) provides police protection services to the City and is headquartered at One Civic Center Drive, approximately 0.7 miles southwest of the Project site. Under the Office of the Police Chief, the department is organized into two divisions: Operations and Administrative Services. Operations encompass uniformed patrol services, whereas the Administrative Services division is comprised of the Investigation Unit and Communications/Records. The department employs crime prevention strategies that include community awareness and education, proactive targeted enforcement of problem areas, and community-oriented policing (Santa Cruz LAFCO 2021a). In 2022, the SVPD's dispatch center handled 3,488 emergency calls. And had an average response time of 2.8 minutes (SVPD 2022).

Schools

The Scotts Valley Unified School District (SVUSD) operates the public school system within City. The SVUSD administers two elementary schools (Vine Hill Elementary and Brook Knoll Elementary), Scotts Valley Middle School, and Scotts Valley High School. Total SVUSD enrollment for the 2022/2023 academic year was 2,644 students (CDE 2023). Additionally, there are students that reside in the City of Scotts Valley who attend private schools, such as Baymonte Christian School, Montessori Scotts Valley, and Pacific Sands Academy.

Parks

The City of Scotts Valley Parks and Recreation Department provides parks, recreation facilities, and recreation programming for the community. The Parks and Recreation Department maintains seven parks and recreational facilities which include large parks with playgrounds, barbeque areas and athletic fields, smaller neighborhood parks, community and senior centers, skate parks, dog parks, tennis courts, and a 49-acre open space preserve with a hiking trails (SVPRD 2023). The closest park to the Project site is MacDorsa Park, located approximately 0.6 miles to the southwest.

Other Public Facilities

The Santa Cruz Public Libraries District provides library services throughout the County through a network of 10 neighborhood library branches is governed by a Joint Powers Authority that includes the County of Santa Cruz and cities of Santa Cruz, Capitola, and Scotts Valley (SCPL 2023). The Scotts Valley Branch Library is located at 251 Kings Village Road, approximately 1.1 miles southwest of the Project site.

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

No Impact. As discussed in Section 3.14, Population and Housing, the Project would not result in direct or indirect population growth that would lead to an increased demand for public services including fire protection, police protection, schools, parks, or other public facilities. As such, the Project would not require the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives. Therefore, the Project would have no impact on public services.

3.16 Recreation

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XVI. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

As described above, the City of Scotts Valley Parks and Recreation Department provides parks, recreation facilities, and recreation programming for the community. The Parks and Recreation Department maintains seven parks and recreational facilities which include large parks with playgrounds, barbeque areas and athletic fields, smaller neighborhood parks, community and senior centers, skate parks, dog parks, tennis courts, and a 49-acre open space preserve with a hiking trails (SVPRD 2023). The closest park to the Project site is MacDorsa Park, located approximately 0.6 miles to the southwest.

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

and

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

No Impact. The Project would consist of a new groundwater well facility and would not include recreational facilities. As discussed in Section 3.14, Population and Housing, the Project would not result in direct or indirect population growth that would lead to increased use of parks or recreational facilities, or require the construction or expansion of recreational facilities. Therefore, the Project would have no impact on recreation.

3.17 Transportation

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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"/>
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"/>
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"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

Roadway Network

The roadway network in the City consists of arterial, collector, and local roadways, which are classified as follows:

- **Arterial.** Serves trips of moderate length. Some emphasis on land access. Often carries local bus routes and provides intra-community continuity but does not typically access residential neighborhoods. Existing average daily traffic (ADT) range of 6,500 to 45,000.
- **Collector.** Provides both land access and traffic circulation. Accesses neighborhoods and communities, collecting and attributing traffic between residential neighborhoods and the arterial streets. Existing ADT range of 800 to 4,500.
- **Local.** Primarily permits direct land access and connections to the higher-order streets. Lowest level of mobility. Through traffic is deliberately discouraged. Existing ADT less than 2,000.

The roadway network that would be used to access the Project site primarily includes Scotts Valley Drive, Mount Hermon Road, and Highway 17. Scotts Valley Drive is a minor arterial roadway which provides direct access to the Project site. Mount Hermon Road is a principal arterial roadway that intersects with Scotts Valley Drive approximately 1.25 miles southwest of the Project site. Highway 17, a freeway under Caltrans jurisdiction, bisects the City and provides regional access to the Project site. Grace Way, which runs behind the Project site, is a local roadway which provides access to residential land uses and would not be expected to be used for Project site access (City of Scotts Valley 2021a).

Transit Facilities

The City is served by three Santa Cruz METRO bus routes, all of which pass by the Project site. Routes 35 and 35E connect the City of Scotts Valley with the City of Santa Cruz and the San Lorenzo Valley. The Highway 17 Express connects downtown Santa Cruz and Scotts Valley with the Diridon Caltrain station and downtown San Jose. Several bus stops are located along Scotts Valley Drive. The Cavallaro Transit Center, located approximately 1 mile southwest of the Project site, serves as the main bus transfer point in the City and provides all-day parking for those using transit for their daily commutes. Private bus transportation also connects the City with the Silicon Valley locations of several large companies (City of Scotts Valley 2021a; Santa Cruz METRO 2023).

Bicycle Facilities

There are currently three types of bicycle facilities in the City: Class I shared-use paths, Class II bicycle lanes, and Class III bicycle routes. Scotts Valley Drive includes Class II bicycle lanes, including along the Project site frontage. The other main arterial street in Scotts Valley, Mount Hermon Road, also has Class II bicycle lanes. The Class II bicycle lanes on these two arterials provide access to most of the major destinations in the City (City of Scotts Valley 2021a).

Pedestrian Facilities

Scotts Valley Drive has continuous sidewalks on both sides of the street from Mount Hermon Road to just past Glenwood Drive, including along the Project site frontage. There are several long gaps between marked crosswalks on Scotts Valley Drive, which makes pedestrian access more challenging along the corridors (City of Scotts Valley 2021a).

- a) *Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?***

Less-than-Significant Impact. Project construction would temporarily impact localized traffic flows on the roads leading to the Project site, including Scotts Valley Drive, Mount Hermon Road, and Highway 17. Construction-related vehicle trips would include construction workers traveling to and from the Project site, haul trucks, and other trucks associated with equipment and material deliveries. Construction of the utility connections would require partial road closures or access limitations in public rights-of-way of Scotts Valley Drive on a temporary and periodic basis during the construction period. An encroachment permit would need to be obtained from the City for construction in public roadways. While the City of Scotts Valley specifies the need for a traffic control plan only if required by the Public Works Director/City Engineer, other requirements of encroachment permits include conducting all street improvements in accordance with the City of Scotts Valley Standard Details and Specification (City of Scotts Valley 2017), which includes policies for addressing lane closures or any form of traffic diversions, including requirements to provide a 6-foot-wide lane for pedestrian and bicycle traffic.

The Project would not increase roadway capacity, generate a permanent increase in traffic, or change traffic patterns that could cause an impact to the circulation system including transit, roadway, bicycle, and pedestrian facilities and therefore would not conflict with adopted policies addressing the circulation system. Once Project construction is complete, operations would entail a minimal increase in on-road vehicle trips associated with routine inspection and maintenance of the new facilities by City staff. Due to the nominal increase in trips generated during operations and maintenance, the roadway operations in the area would not substantially differ from existing conditions. Therefore, the Project would not conflict with adopted policies, plans, or programs addressing the circulation system including transit, roadway, bicycle, and pedestrian facilities and the impact would be less than significant.

b) *Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?*

Less-than-Significant Impact. CEQA Guidelines Section 15064.3 states that vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts and describes criteria for analyzing transportation impacts, including: (1) land use projects, (2) transportation projects, (3) qualitative analysis, and (4) methodology. The Project would be categorized under (3), qualitative analysis, as this Subdivision (b)(3) recognizes that lead agencies may not be able to quantitatively estimate VMT for every project type. Furthermore, the Governor's Office of Planning and Research (OPR) has identified a screening threshold that states that projects that generate fewer than 110 daily trips generally may be assumed to cause a less-than-significant impact (OPR 2018).

Construction activities would result in a temporary increase in vehicle trips to the project site during construction by workers and equipment. The Project would not generate new residents or businesses that would result in an increase in VMT. Project operation would involve approximately one trip per day to the Project site for operational and maintenance activities, which is below the OPR-recommended screening threshold of 110 daily trips and would not appreciably increase VMT. Therefore, the Project would have a less-than-significant impact on VMT.

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

No Impact. The Project would retain the existing Project site access from Scotts Valley Drive and would not involve the construction of additional driveways or modifications to the existing driveway. Improvements within the public right-of-way of Scotts Valley Drive would consist of connections to existing utilities, which would be below ground with the surface restored to be similar to existing conditions after construction. No other modifications to public roadways are proposed, and the Project would not include the creation of sharp curves or dangerous intersections, or introduce incompatible uses. Therefore, the Project would have no impact related to increased hazards due to a geometric design feature or incompatible uses.

d) *Would the project result in inadequate emergency access?*

Less-than-Significant Impact. The Project would not include changes to the existing street system that could hinder emergency access. Construction and staging areas would not obstruct Project site egress or ingress, which is from a single existing driveway on Scotts Valley Drive. As previously discussed, construction of utility improvements would require partial road closures or access limitations in the public right-of-way of Scotts Valley Drive on a temporary and periodic basis during the construction period. An encroachment permit from the City would be required for work done within the public right-of-way, which

would include provisions for addressing lane closures or traffic diversions in accordance with the City of Scotts Valley Standard Details and Specification (City of Scotts Valley 2017). Implementation of these requirements would ensure that access for emergency vehicles would be maintained during construction. During operation, the Project would have limited operational traffic and vehicle trips associated with routine maintenance of the facility which would not affect emergency access. Therefore, the Project would have a less-than-significant impact on emergency access.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	<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 Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

Assembly Bill 52 requires that California lead agencies consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project, if so requested by the tribe. No Native American tribe has contacted SVWD and requested consultation related to SVWD properties or projects.

Assembly Bill 52 also specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. Defined in Section 21074(a) of the Public Resources Code, a tribal cultural resource is a site feature, place, cultural landscape, sacred place, or object, which is of cultural value to a California Native American tribe and is either listed in or eligible for listing in the California Register of Historical Resources or a local historic register, or the lead agency, at its discretion, chooses to treat the resource as a tribal cultural resource.

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

- a) *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?*

and

- b) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

Less-than-Significant Impact with Mitigation Incorporated. As described in Section 3.5, Cultural Resources, the existing structure on the Project site is neither listed in nor eligible for the NRHP, CRHR, CHL, or local register of historic resources. Based on the CHRIS records search conducted for the Project site (see Appendix C), the Project area contains no previously recorded archaeological resources or tribal cultural resources. Similarly, the search of the NAHC Sacred Lands File and outreach to locally affiliated Native American contacts did not identify any known Native American resources in the Project area. Furthermore, the site is within a developed commercial and residential area of Scotts Valley. As there are no known tribal cultural resources identified on the Project site, the Project would not cause a substantial adverse change in the significance of a known tribal cultural resource listed in or eligible for listing in the NRHP, CRHR, CHL, or a local register.

Given the context of the Project area within a developed commercial and residential area of Scotts Valley and the previous disturbance on the site, there is a low potential for encountering unrecorded tribal cultural resources. In the event that a tribal cultural resource is discovered on the Project site during ground-disturbing construction activities, MM CUL-1 and MM CUL-2 described in Section 3.5 would reduce potential impacts to a less-than-significant level. Therefore, with incorporation of MM CUL-1 and MM CUL-2, the Project would have a less-than-significant impact related to unanticipated discoveries of tribal cultural resources.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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 stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<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"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>
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"/>

Setting

Water

As previously described, the SVWD provides water service to most of the incorporated area of the City and some unincorporated areas north of the City, encompassing an area of approximately 6 square miles (Santa Cruz LAFCO 2021c). For its potable water supply, the SVWD relies solely on groundwater from the Santa Margarita Groundwater Basin, which it extracts from six groundwater wells with a maximum extraction capacity of 1,400 gpm that vary from 250 feet to 1,750 feet deep (Santa Cruz LAFCO 2021c; SVWD 2023). Three water treatment plants with a combined capacity of nearly 2.06 million gallons per day treat the groundwater to meet federal and state potable water quality standards (SVWD 2023).

Wastewater

Sanitary sewer service in the City is provided by the City of Scotts Valley Department of Public Works, Wastewater Division. The sanitary sewer collection system is made up of approximately 40 miles of pipeline, as well as seven lift stations (City of Scotts Valley 2021b). All wastewater is conveyed to and treated at the Scotts Valley Water Reclamation Facility, located at 700 Lundy Lane, approximately 1.4 miles southwest of the Project site. The Water Reclamation Facility provides wastewater treatment services as well as recycled water for landscape irrigation and other uses. The plant's current capacity is 1.5 million gallons per day for wastewater treatment and 1 million gallon per day for recycled water processing (Santa Cruz LAFCO 2021a). In 2021, average daily dry weather flow was 0.621 million gallons per day (City of Scotts Valley 2021b).

Stormwater

The City storm drain system collects storm water runoff from City streets along gutters and through underground pipes to discharge into waterways. The system is designed for the control of flooding and does not provide any treatment to stormwater runoff (City of Scotts Valley 2021a). Most of the storm drain systems are short and drain directly to the Carbonera or Camp Evers Creek or tributaries to the creeks. Longer systems run below Scotts Valley Drive and Mount Hermon Road (City of Scotts Valley 2018).

Electric Power, Natural Gas, and Telecommunications

PG&E provides electricity and natural gas services to the City. Eight telecommunication service providers serve the City, including AT&T, Xfinity, Sonic Telecom, HughesNet, Viasat, Razzo Link, Cruzio Internet, and Etheric Networks.

Solid Waste

GreenWaste Recovery provides residential and commercial waste collection services to the City. Solid waste is transported to either the Buena Vista Sanitary Landfill, which is operated by the County of Santa Cruz, or the Ben Lomond Transfer Station, where it is then delivered to the Monterey Peninsula Landfill, which is operated by the Monterey Regional Waste Management District. The Buena Vista Sanitary Landfill, located west of the City of Watsonville, is permitted to receive 838 tons of solid waste per day and has a maximum capacity of 7,537,700 cubic yards of solid waste, with approximately 1,766,005 cubic yards of remaining capacity as of the most recent capacity evaluation in 2020. The Buena Vista Sanitary Landfill is expected to reach capacity in 2031 (CalRecycle 2023a). The Monterey Peninsula Landfill, located in Marina, is permitted to receive 3,500 tons of solid waste per day and has a maximum capacity of 49,700,000 cubic yards of solid waste, with approximately 48,560,000 cubic yards of remaining capacity as of the most recent capacity evaluation in 2004. The Monterey Peninsula Landfill is expected to reach capacity in 2107 (CalRecycle 2023b).

- a) ***Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?***

Less-than-Significant with Mitigation Incorporated. The Project would be connected to existing utility infrastructure in the vicinity of the Project site and would not require the relocation or construction of new or expanded utilities. The Project would not generate sanitary wastewater or otherwise contribute to an increase in wastewater treatment that would necessitate new or expanded wastewater facilities. As discussed in Section 3.10, Hydrology and Water Quality, the Project would generally preserve existing

drainage patterns on site and would not result in an increase in the site's existing impervious surface area, and would not require new or expanded stormwater drainage facilities. Groundwater generated during initial well development would be diverted to the on-site sanitary sewer connection and discharged in accordance with a sewer discharge permit from the City of Scotts Valley. Discharge of final development and testing groundwater would be diverted to a stormwater drain inlet on the west side of Scotts Valley Drive and just east of the northeast corner of the property. All water discharged to the storm drain would comply with the requirements of the SVWD's NPDES Permit for Drinking Water System Discharges to Waters of the United States (Order WQ 2014-0194-DWQ, General Order No. CAG140001) issued by the SWRCB.

The Project would be served by existing PG&E electric power infrastructure in the vicinity of the Project site and energy would be supplied from the regional electricity grid, and no new or expanded electric power facilities would be needed. The Project would not involve any components requiring natural gas service. The Project would require telecommunications to operate the groundwater well and would be connected to existing infrastructure in the vicinity of the Project site.

The Project itself is construction and operation of a new water facility, in the form of a groundwater production well and associated facilities at the Project site, including installation of pipelines to connect the new well to the SVWD's water distribution system and sanitary sewer system. The potential environmental impacts associated with construction of the proposed utilities are evaluated in this Initial Study. This Initial Study has determined that the Project would have potentially significant impacts related to biological resources, cultural resources, geology and soils, hydrology and water quality, and tribal cultural resources, all of which would be reduced to a less-than-significant level with implementation of the mitigation measures identified in this Initial Study. Therefore, with incorporation of mitigation measures, the Project would have less-than-significant impacts related to the construction of new or expanded water facilities.

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

No Impact. The Project would not result in direct or indirect population growth that would lead to an increased demand for water supplies; rather, the Project itself would provide water supplies to provide redundancy and allow for increased extraction capacity to meet SVWD customer water demand. Therefore, the Project would have no impact related to having sufficient water supply to serve the Project and cumulative development.

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

Less-than-Significant Impact. Groundwater generated during initial well development would be discharged to the local sanitary sewer. The discharge of groundwater to the sanitary sewer system and subsequent conveyance to the Scotts Valley Water Reclamation Facility would be periodic and would not alter existing wastewater characteristics or result in the need for new treatment methods. Therefore, the Project would have a less-than-significant impact related to wastewater treatment capacity.

d) *Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

Less-than-Significant Impact. As described above, landfills serving the Project site both have remaining capacity; the Buena Vista Landfill is expected to have capacity until 2031, and the Monterey Peninsula Landfill is expected to have capacity until 2107. Thus, adequate landfill capacity is available during the timeframe of the Project and beyond.

Construction activities would temporarily generate solid waste, including demolition debris, spoils, asphalt, and other construction waste. Earthen spoils excavated during well facility construction and pipeline installation may be used as backfill around the facilities or, if they cannot be accommodated on site or used as fill for other construction projects in the area, may be hauled off-site for recycling or disposal. It is expected that the disposal of construction materials would generally be limited, and the majority of construction waste would be recycled and reused due to the cost of disposing of such materials. Due to the temporary nature of construction and minimal amount of construction waste anticipated to require disposal, the Project would not generate quantities of solid waste that would account for a substantial percentage of the total daily regional permitted capacity available at landfills accepting such waste. Once operational, the Project would include unmanned facilities and would result in the generation of minor amounts of solid waste. Therefore, the Project would have a less-than-significant impact on landfill capacity.

e) *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Less-than-Significant Impact. The Project would be required to comply with all applicable regulations related to the reduction of solid waste entering landfills, including the California Integrated Waste Management Act (AB 939), potentially new more aggressive statewide resource recovery goals (i.e., AB 341 policy goal of 75% reduction), as well as the City's plans, policies, and programs related to recycling/diversion and disposal of solid waste. As previously noted, during construction, all wastes would be expected to be recycled to the maximum extent possible, in accordance with applicable regulations. All nonhazardous solid waste generated from the Project once operational would be recycled, with a goal of 75%, in compliance with the Integrated Waste Management Act. Unsalvageable materials generated from the Project would be disposed of at authorized sites in accordance with all applicable federal, state, and local statutes and regulations. Therefore, the Project would have a less-than-significant impact related to compliance with federal, state, and local management and reduction statutes and regulations related to solid waste.

3.20 Wildfire

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No 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"/>
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"/>
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"/>
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"/>

Setting

In accordance with state law, CAL FIRE has developed fire hazard severity zone (FHSZ) maps that identify relative wildfire hazard potential over the long term (i.e., 30 to 50 years) for all areas of the state. The FHSZs reflect areas that have similar burn probabilities and fire behavior characteristics and are split into three classes: moderate, high, and very high. CAL FIRE has adopted FHSZ maps for the SRA (CAL FIRE 2007a), and draft maps for the LRA (CAL FIRE 2007b). CAL FIRE released updated FHSZ maps for the SRA in November 2022, which have not yet been adopted, but reflect the latest fire science, data, and mapping techniques.

The Project site is located within a LRA within the service area of the Scotts Valley Fire District. The Project site is not within a wildland area, which includes forests, grasses, and shrublands where the land cover is dominated by vegetation. In non-wildland areas, wildfire hazard arises due to ember transport from adjacent wildlands and associated fire spread through urban vegetation and structures. The unincorporated area surrounding the City is within a SRA and is classified as a moderate FHSZ in the 2007 FHSZ maps (CAL FIRE 2007a). In the 2022 FHSZ maps, the surrounding unincorporated area is classified primarily as a high FHSZ, with some moderate FHSZ located to the south of the City (CAL FIRE 2022). No very high FHSZs within the SRA are located near the Project site (CAL FIRE 2007a, 2022), and no very high FHSZs are located within the LRA in Santa Cruz County (CAL FIRE 2007b).

- a) *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

and
- b) *Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

and
- c) *Would the project 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?*

and
- d) *Would the project 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?*

No Impact. The Project would include construction and operation of groundwater well infrastructure on a developed site within a commercial area and would not exacerbate wildfire hazards. There are no wildland areas adjacent to the Project site that could pose a wildfire hazard to the Project site. Therefore, the Project would have no impact related to wildfire.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

Less-Than-Significant Impact With Mitigation Incorporated. The Project would not substantially reduce habitat of fish or wildlife species or other special-status species, as the Project location constitutes a built environment. There are no sensitive habitats or wetlands located on the Project site, and no special-status species are known to or have the potential to occupy the site. However, protected birds could potentially nest in trees near the Project site and could be disturbed during construction activities; implementation of MM BIO-1, which requires preconstruction nesting bird surveys and other measures if demolition or construction occurs during the typical avian nesting season (see Section 3.4, Biological Resources), would ensure that impacts to nesting protected birds would be reduced to a less-than-significant level.

The Proposed Project would not eliminate important examples of the major periods of California history or prehistory. The Project would not result in impacts to built historical resources or known archaeological or tribal cultural resources, as none are located on or near the Project site. Although it is not anticipated that new archaeological resources or tribal cultural resources would be encountered during Project construction, MM CUL-1 and MM CUL-2 would be implemented with the Project to ensure that impacts related to inadvertent discovery of cultural resources would be reduced to a less-than-significant level.

Therefore, with incorporated of mitigation measures identified herein to protect biological and cultural resources, the Project would not substantially degrade the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

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

Less-Than-Significant Impact. Cumulative impacts could occur if past, present, and reasonably foreseeable future projects were to contribute incremental impacts on the same resources as the Project or result in impacts that coincide with Project impacts during construction or operation. According to the City of Scotts Valley Planning Department list of current Citywide projects, there are a number of projects that are under construction, approved, or under review in the City, some of which are in the general Project vicinity along or off of Scotts Valley Drive. Current projects tend to be smaller-scale infill development, as the City’s urban area is already largely built out. It is possible that construction of some of the City’s current projects could overlap with construction of the Project.

The impacts of the Project on existing localized environmental conditions are detailed throughout this Initial Study, and the Project would not combine with other development projects in the vicinity to result in cumulative impacts related to localized issues including aesthetics, biological resources, cultural resources, geology and soils, and noise.

As indicated in Section 3.3, Air Quality, the Project would not result in cumulatively considerable air quality impact as construction and operational emissions associated with the Project would not exceed the MBARD significance thresholds. As indicated in Section 3.8, Greenhouse Gas Emissions, the Project would not result in significant impacts related to GHG emissions and, therefore, the Project would not result in a cumulatively considerable contribution to global climate change. Additionally, the Project would generate a negligible increase in permanent (operational) vehicle trips or vehicle miles traveled and, therefore, would not result in a cumulatively considerable contribution to transportation impacts. Given the foregoing, the Project’s cumulative impacts would be less than significant.

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

Less-Than-Significant Impact With Mitigation Incorporated. Implementation of the Proposed Project would not directly or indirectly cause substantial adverse effects on human beings, including those related to air quality, hazardous materials, emergency response, proximity to airport activities, noise, or transportation hazards. Implementation of the Project would not result in any impacts that are significant and unavoidable or cumulatively considerable. The implementation of the mitigation measures identified herein would reduce all potentially significant impacts to a less-than-significant level. Therefore, the Project would not result in impacts that would cause substantial adverse effects on human beings, either directly or indirectly.

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4 References and Preparers

4.1 References Cited

All Bay Environmental. 2023a. *Asbestos Inspection Report*. September 25, 2023.

All Bay Environmental. 2023b. *Lead Paint Report*. September 26, 2023.

AMBAG (Association of Monterey Bay Area Governments). 2022 *Monterey Bay 2045 Moving Forward – 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy*. June 2022. Accessed July 17, 2023 at <https://ambag.org/plans/2045-metropolitan-transportation-plan-sustainable-communities-strategy>.

Bay Area Air Quality Management District (BAAQMD). 2022. *California Environmental Quality Act Air Quality Guidelines*. April 2022. Accessed July 17, 2023 at <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>.

CalEPA (California Environmental Protection Agency). 2023a. “Cortese List: Section 65962.5(a).” Accessed June 27, 2023 at <https://calepa.ca.gov/sitecleanup/corteselist/section-65962-5a/>.

CalEPA. 2023b. List of “active” CDO and CAO from Water Board. Accessed June 27, 2023 at <https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/SiteCleanup-CorteseList-CDOCAOList.xlsx>.

CalEPA. 2023c. *Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit*. Accessed June 27, 2023 at <https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/SiteCleanup-CorteseList-CurrentList.pdf>.

Caltrans (California Department of Transportation). 2019. List of eligible and officially designated State Scenic Highways. Updated July 2019. Accessed May 18, 2023 at https://dot.ca.gov/-/media/dot-media/programs/design/documents/desig-and-eligible-aug2019_a11y.xlsx.

Caltrans. 2020a. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. Prepared by R. Hendriks, B. Rymer, D. Buehler, and J. Andrews. Sacramento: Caltrans. April 2020.

Caltrans. 2020b. *Transportation and Construction Vibration Guidance Manual*. Prepared by J. Andrews, D. Buehler, H. Gill, and W.L. Bender. Sacramento: Caltrans. April 2020. Accessed September 2, 2020 at <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>.

CAPCOA (California Air Pollution Control Officers Association). 2008. *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*. January 2008.

CAPCOA (California Air Pollution Control Officers Association). 2022. *CalEEMod: California Emissions Estimator Model*. Version 2022.1. April 2022. Accessed July 17, 2023 at https://www.caleemod.com/documents/user-guide/01_User%20Guide.pdf.

- CARB (California Air Resources Board). 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005. Accessed July 13, 2023 at <http://www.aqmd.gov/docs/default-source/ceqa/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf>.
- CARB. 2017. *California's 2017 Climate Change Scoping Plan*. November 2017. Accessed July 17, 2023 at https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf.
- CARB 2022a. Monterey Peninsula Meteorological Data Wind Rose. Accessed July 17, 2023 at <https://ww2.arb.ca.gov/resources/documents/harp-aermod-meteorological-files>.
- CARB 2022b. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 2022. Accessed July 17, 2023 at <https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf>.
- CARB. 2023a. "Carbon Monoxide & Health." Accessed July 17, 2023 at <https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health>.
- CARB. 2023b. "Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀)." Accessed July 17, 2023 at <https://www.arb.ca.gov/research/aaqs/common-pollutants/pm/pm.htm>.
- CARB. 2023c. "Ozone & Health." Accessed July 17, 2023 at <https://ww2.arb.ca.gov/resources/ozone-and-health>.
- CARB. 2023d. "Nitrogen Dioxide & Health." Accessed July 17, 2023 at <https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health>.
- CARB. 2023e. "Sulfur Dioxide & Health." Accessed July 17, 2023 at <https://ww2.arb.ca.gov/resources/sulfur-dioxide-and-health>.
- CDE (California Department of Education). 2023. "2022-23 Enrollment by Grade, Scotts Valley Unified Report (44-75432)." Accessed July 19, 2023 at <https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=4475432&aggllevel=district&year=2022-23>.
- CEC (California Energy Commission). 2023. "Electricity Consumption by County." Accessed July 14, 2023 at <http://ecdms.energy.ca.gov/elecbycounty.aspx>.
- Central Coast RWQCB (Regional Water Quality Control Board). 1998a. Case Closure: 5276 Scotts Valley Drive, Scotts Valley; Former Sturdy Oil/Exxon Service Station. Letter from Roger W. Briggs, Central Coast RWQCB, to Mr. Jon Fanoie, Sturdy Oil Company. April 20, 1998. Accessed June 27, 2023 at https://documents.geotracker.waterboards.ca.gov/site_documents/4862583756/Case%20Closure%20Summary.pdf.
- Central Coast RWQCB. 1998b. UGT: Case Closure: 5276 Scotts Valley Drive, Scotts Valley; Former Exxon/Sturdy Oil. Letter from Roger W. Briggs, Central Coast RWQCB, to Mr. Jon Fanoie, Sturdy Oil Company. November 2, 1998. Accessed June 27, 2023 at https://documents.geotracker.waterboards.ca.gov/regulators/deliverable_documents/3281006336/1998-11-02%20Case%20Closure.pdf.

- Central Coast RWQCB. 2019. *Water Quality Control Plan for the Central Coastal Basin*. June 2019 Edition. Accessed July 5, 2023 at https://www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/docs/2019_basin_plan_r3_complete_webaccess.pdf.
- CGS (California Geological Survey). 2002. *California Geomorphic Provinces: Note 36*. 4 pp. Accessed July 17, 2023 at <https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf>.
- CGS. 2015. "Geologic Map of California." Accessed May 25, 2023 at <https://maps.conservation.ca.gov/cgs/gmc/>.
- CGS. 2021. "EQ Zapp: California Earthquake Hazards Zone Application." Updated September 23, 2021. Accessed May 25, 2023 at <https://maps.conservation.ca.gov/cgs/EQZApp/app/>.
- City of Scotts Valley. 1994a. *1994 General Plan, Chapter IV: Open Space and Conservation*. Accessed March 20, 2023 at <https://www.scottsvalley.org/DocumentCenter/View/926/Chapter-4-Open-Space-and-Conservation-PDF>.
- City of Scotts Valley. 1994b. *1994 General Plan, Chapter V: Noise*. Accessed July 24, 2023 at <https://www.scottsvalley.gov/DocumentCenter/View/927/Chapter-5-Noise-PDF>.
- City of Scotts Valley. 1994c. *1994 General Plan, Chapter VI: Safety*. Accessed May 25, 2023 at <https://www.scottsvalley.gov/DocumentCenter/View/928/Chapter-6-Safety-PDF>.
- City of Scotts Valley. 1994d. *1994 General Plan, Chapter VII: Public Services and Facilities*. Accessed July 11, 2023 at <https://www.scottsvalley.gov/DocumentCenter/View/929/Chapter-7-Public-Services-and-Facilities-PDF>.
- City of Scotts Valley. 2015. *Emergency Operations Plan*. November 2015. Accessed June 28, 2023 at <https://www.scottsvalley.gov/DocumentCenter/View/975/Scotts-Valley-Emergency-Operations-Plan-PDF>.
- City of Scotts Valley. 2017. *Standard Details and Specifications*. Department of Public Works, Engineering Division. December 2017. Accessed May 22, 2023 at <https://www.scottsvalley.gov/DocumentCenter/View/2440/Standard-Details-12-06-17>.
- City of Scotts Valley. 2018. *Storm Drain Master Plan Update*. October 2018. Accessed July 19, 2023 at <https://www.scottsvalley.gov/DocumentCenter/View/2830/City-of-Scotts-Valley-Storm-Drain-Master-Plan-October-2018>.
- City of Scotts Valley. 2020. *City of Scotts Valley General Plan*. General Plan Advisory Committee (GPAC) Final Draft. October 2020. Accessed June 28, 2023 at http://www.scottsvalleygeneralplan.com/Links/SVGP_GPAC%20Final%20Review%20Draft_10-13-2020.pdf.
- City of Scotts Valley. 2021a. *City of Scotts Valley Active Transportation Plan*. Accepted by the Scotts Valley City Council on March 17, 2021. Accessed May 19, 2023 at <https://www.scottsvalley.gov/DocumentCenter/View/2800/SV-Active-Transportation-Plan>.
- City of Scotts Valley. 2021b. *Wastewater Reclamation Facility Annual Report, 2021*. Accessed July 19, 2023 at <https://www.scottsvalley.gov/ArchiveCenter/ViewFile/Item/253>.

- Cohen, K.M., S.C. Finney, P.L. Gibbard, and J.-X. Fan. 2021. "The ICS International Chronostratigraphic Chart." Episodes 36: 199--204. 2013; updated May 2021. Accessed July 17, 2023 at <https://stratigraphy.org/ICSchart/ChronostratChart2021-05.jpg>.
- County of Santa Cruz. 2020 *1994 General Plan, Chapter 5: Conservation and Open Space*. Accessed March 20, 2023 at https://www.sccoplanning.com/Portals/2/County/userfiles/106/GP_Chapter%205_Open%20Space_Conservation.pdf.
- County of Santa Cruz. 2021. *Local Hazard Mitigation Plan, 2021-2026*. July 2021. Accessed June 1, 2023 at <https://www.sccoplanning.com/Portals/2/County/Planning/policy/LHMP/County%20of%20Santa%20Cruz%20LHMP%202021-2026.pdf>.
- County of Santa Cruz. 2022. "Mineral Class." Updated March 29, 2022. Accessed May 8, 2023 at <https://opendata-sccgis.opendata.arcgis.com/maps/66b60aa6ae784e3b830430966531bea2>.
- DTSC (Department of Toxic Substances Control). 2023a. EnviroStor: List of Cleanup Sites and Permitted Sites within 0.25 miles of 5297 Scotts Valley Drive. Online database. Accessed June 27, 2023 at <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=5297+scotts+valley+drive>.
- DTSC. 2023b. "Hazardous Waste and Substances Site List (Cortese)." Online database. Accessed June 27, 2023 at https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29.
- DOC (California Department of Conservation). 2022. California Williamson Act Enrollment 2022. Accessed May 19, 2023 at <https://gis.conservation.ca.gov/portal/home/webmap/viewer.html?webmap=18f7488c0a9d4d299f5e9c33b312f312>.
- DOC. 2023. California Important Farmland Finder. Accessed May 19, 2023 at <https://maps.conservation.ca.gov/DLRP/CIFF/>.
- DOT (U.S. Department of Transportation). 2006. *FHWA Roadway Construction Noise Model: User's Guide*. Final Report. FHWA-HEP-06-015. DOT-VNTSC-FHWA-06-02. Cambridge, Massachusetts: DOT, Research and Innovative Technology Administration. August 2006.
- DWR (California Department of Water Resources). 2016. *3-027 Santa Margarita: Basin Boundaries Description*. Accessed April 25, 2023 at https://data.cnra.ca.gov/dataset/8862c877-dda7-44a1-a742-fc05ff5a87cd/resource/683c7283-0e2c-47d7-926d-292dc524623b/download/3-027_santa-margarita_basinboundarydescription.pdf.
- EIA (U.S. Energy Information Administration). 2023a. "California State Energy Profile." Last updated April 20, 2023. Accessed July 14, 2023 at <https://www.eia.gov/state/print.php?sid=CA>.
- EIA. 2023b. "California State Profile and Energy Estimates – Table F16: Total Petroleum Consumption Estimates, 2021." Accessed July 14, 2023 at https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_pa.html&sid=US&sid=CA.

- EIA. 2023c. "State Electricity Profiles – California Electricity Profile 2021." November 10, 2022. Accessed July 14, 2023 at <https://www.eia.gov/electricity/state/california/>.
- FEMA (Federal Emergency Management Agency). 2012. National Flood Hazard Layer FIRMette. Flood Map No. 06087C0217E. Effective on May 16, 2012. Accessed July 5, 2023 at <https://msc.fema.gov/portal/search?AddressQuery=5297%20scotts%20valley%20drive%2C%20scotts%20valley%20ca>.
- FTA (Federal Transit Administration). 2018. *Transit Noise and Vibration Impact Assessment Manual*. Prepared by John A. Volpe National Transportation Systems Center. Washington, DC: FTA. September 2018. Accessed July 31, 2023 at https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.
- Fullerton, Jeffery. 2014. *Noise Associated with The Ground Water Systems Serving Residential Geothermal Heat Pumps*. Published by I-INCE for the Inter.Noise 2014 conference. Melbourne Australia.
- M&A. 2023a. Letter from Georgina King, Montgomery & Associates, to David McNair, SVWD. Subject: Review of April 2023 Groundwater Conditions in the Scotts Valley Water District Service Area. May 9, 2023. Accessed July 5, 2023 at <https://www.svwd.org/media/Reports/Water%20and%20Planning/GWCRWY23.pdf>.
- M&A. 2023b. *Results of Modeled Groundwater Impacts from Proposed Well Extraction*. November 2, 2023.
- MBARD (Monterey Bay Air Resources District). 2008. *CEQA Air Quality Guidelines*. Adopted October 1995. Last revised February 2008. Accessed July 17, 2023 at <https://www.mbard.org/files/Oce48fe68/CEQA+Guidelines.pdf>.
- MBARD. 2016. *Guidelines for Implementing the California Environmental Quality Act*. Adopted April 1996. Revised February 2016. Accessed July 17, 2023 at <https://www.mbard.org/files/b4d8179d3/CEQA+Implementation.pdf>.
- NHMLA (Natural History Museum of Los Angeles County). 2023. Paleontological Resources for the Grace Way Well Project (PN:15045). Unpublished Records Search Results Letter from A. Bell with the Natural History Museum of Los Angeles County, Los Angeles, California, dated June 11, 2023.
- OEHHA (Office of Environmental Health Hazard Assessment). 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments 2015*. February 2015. Accessed July 17, 2023 at http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.
- OPR (Governor's Office of Planning and Research). 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018. Accessed May 12, 2023 at https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.
- Santa Cruz LAFCO (Local Agency Formation Commission of Santa Cruz County). 2021a. *City of Scotts Valley: Service and Sphere of Influence Review*. Adopted March 3, 2021. Accessed July 19, 2023 at <https://santacruzlafco.org/wp-content/uploads/2021/03/Scotts-Valley-Service-and-Sphere-Review-3-3-21-Adopted-Version.pdf>.
- Santa Cruz LAFCO. 2021b. *Countywide Fire Protection Service and Sphere Review*. Adopted October 13, 2021. Accessed July 19, 2023 at https://santacruzlafco.org/wp-content/uploads/2021/11/Countywide-Fire-Service-Sphere-Review-10-13-21-Adopted-Version_.pdf.

- Santa Cruz LAFCO. 2021c. *Scotts Valley Water District: Service and Sphere of Influence Review*. Adopted May 5, 2021. Accessed April 25, 2023 at https://www.santacruzlafco.org/wp-content/uploads/2021/05/SVWD-Service-and-Sphere-Review-Adopted-Version_.pdf.
- Santa Cruz METRO. 2023. "System Map." Accessed May 22, 2023 at <https://www.scmted.com/en/routes/schedule/map>.
- SCAQMD (South Coast Air Quality Management District). 2003. *Final 2003 Air Quality Management Plan, Appendix V Modeling and Attainment Demonstrations*. August 2003. Accessed July 17, 2023 at <https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2003-air-quality-management-plan/2003-aqmp-appendix-v.pdf?sfvrsn=2>.
- SCCEH (Santa Cruz County Environmental Health). 2023. "Santa Cruz County Watersheds." Accessed June 5, 2023 at <https://scceh.com/NewHome/Programs/WaterResources/FisheriesWatershedManagement/SantaCruzCountyWatersheds.aspx>.
- SCCRTC (Santa Cruz County Regional Transportation Commission). 2022. Santa Cruz County Weekday Average Daily Traffic Counts 2014-2022. Accessed July 14, 2023 at <https://scrtc.org/funding-planning/statistics/>.
- SCPL (Santa Cruz Public Libraries). 2023. "About the Library." Accessed July 19, 2023 at <https://www.santacruzpl.org/aboutscpl/>.
- SMGWA (Santa Margarita Groundwater Agency). 2021. *Groundwater Sustainability Plan*. 2021. Accessed April 25, 2023 at https://www.smgwa.org/media/GroundwaterSustainabilityPlan/SMGB_GSP_Final_2021-11-11.pdf.
- SMGWA. 2023. "About Us: Santa Margarita Basin." Accessed April 25, 2023 at <https://www.smgwa.org/SantaMargaritaBasin>.
- SVFPD (Scotts Valley Fire Protection District). 2023. "About the District." Accessed July 19, 2023 at <https://www.scottsvalleyfire.com/about-the-district/>.
- SVP (Society of Vertebrate Paleontology). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. 11 p. Accessed July 17, 2023 at https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines-1.pdf.
- SVPD (Scotts Valley Police Department). 2023. *Annual Activity Report – 2022*. May 17, 2023. Accessed July 19, 2023 at https://www.scottsvalleypd.com/files/ugd/385dfa_2af74e9276094768a3e425e976afa1bf.pdf.
- SVPRD (Scotts Valley Parks and Recreation Department). 2023. "Visit Our Parks." Accessed July 19, 2023 at <https://www.scottsvalley.gov/439/Visit-Our-Parks>.
- SVWD (Scotts Valley Water District). 2023. "Water Supply & Demand." Accessed April 25, 2023 at <https://www.svwd.org/Supply>.
- SVWD and SLVWD (Scotts Valley Water District and San Lorenzo Valley Water District). 2021. *2020 Urban Water Management Plan*. Final. June 2021. Accessed July 5, 2023 at <https://www.svwd.org/media/Reports/Water%20and%20Planning/UWMP2020.pdf>.

SWRCB (State Water Resources Control Board). 2023. GeoTracker: List of All Site/Facility Types within 0.25 miles of 5297 Scotts Valley Drive. Online database. Accessed June 27, 2023 at <https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=5297+scotts+valley+drive+scotts+valley+ca>.

The Climate Registry. 2022. "2022 Default Emission Factors." May 2022. Accessed July 17, 2023 at <https://theclimateregistry.org/wp-content/uploads/2022/11/2022-Default-Emission-Factors-Final.pdf>.

USGS (U.S. Geological Survey). 2023. Accessed June 1, 2023 at https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html.

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