CENTRAL WATER DISTRICT
Notice of Intent
to
Adopt a Mitigated Negative Declaration

2019029014

The Central Water District is preparing to adopt a **Mitigated Negative Declaration** for the following proposed project:

Project: Well 14 Project
Project Location: 7200 Freedom Blvd, Aptos CA 95003, Santa Cruz County APN 041-242-21
Project Applicant: Central Water District, Aptos CA
Project Description: The proposed project consists of the construction of a 600 foot deep 12" diameter well casing, well pump station, electrical system and 8 inch diameter pipeline to the existing water distribution system of Central Water District, Aptos, California. This well will be a replacement well for Central Water District Well #4 and #10 which have severe water quality problems and will be retired.
Significant Effects on the Environment: Potential significant impacts were identified related to biological resources and geology and soils, which can be mitigated to a less than significant level with mitigation measures included in the Mitigated Negative Declaration. The Central Water District has reviewed the proposed project and has determined that the project, with mitigation measures as conditions of project approval, will not have a significant effect on the environment.

A copy of the Mitigated Negative Declaration and Initial Study may be reviewed or obtained at the address below or is available online at www.centralwaterdistrict.us.com.

Central Water District
RE: Well 14 Project
400 Cox Road
Aptos, CA 95001

Comments on the Mitigated Negative Declaration should be in writing to the Central Water District address listed above or by email to admin@centralwaterdistrict.us.com from **February 1, 2019 through March 15, 2019**. The Central Water District Board of Directors will consider the proposed Mitigated Negative Declaration at a public hearing following the comment period on **March 18, 2019** at the regularly scheduled Board of Directors meeting located at 400 Cox Road, Aptos, CA.

If you have any questions or comments, please contact Ralph Bracamonte at 831-688-2767 or email admin@centralwaterdistrict.us.com..

Mitigated Negative Declaration
Central Water District

The Central Water District has prepared this **Mitigated Negative Declaration** for the following described project:

Project:
Well 14 Project

Project Location:
7200 Freedom Blvd,
Aptos CA 95003,
Santa Cruz County APN 041-242-21
(See map in attached Initial Study)

Project Description: The proposed project consists the construction of a 600 feet deep 12" diameter well casing, well pump station, electrical system and 8 inch diameter pipeline to the existing water distribution system of Central Water District, Aptos, California. The project is shown on **Figure 3 and Figure 4**. This well will be a replacement well for Central Water District Well #4 and #10 which have water quality problems and will be retired.

The proposed 8" pipeline will connect to the existing pipeline in Freedom Boulevard and run approximately 900 feet in a buried trench to the new concrete block building which will contain the electrical systems and a double contained chlorine solution tank and pump. The pipeline will be contained in a 30 foot wide easement which will also contain a buried 4" PG&E electrical conduit. The well will be located outside the building and will contain a submersible pump with a capacity of about 500 gallons per minute.

Access to the well site will be from a paved driveway from Freedom Blvd. An emergency engine generator will not be included in the project.

The well should take about 3 months to construct. The remaining work including pipelines, well building, chlorination system and startup should take about 6 months.

Well drilling fluids and test pumped well water will be stored on site in temporary tanks and will be disposed of off site in approved sites.

Once construction is completed, the site will be visited daily when pumping to observe all equipment and condition of constructed facilities.

Applicant: Not Applicable

FINDINGS: The Central Water District has reviewed the proposed project and has determined, based on the attached Initial Study, that the project will have a less-than-significant impact on the environment with implementation of mitigation measures. Consequently, adoption of a Mitigated Negative Declaration is appropriate. An Environmental Impact Report is not required pursuant to the *California Environmental Quality Act of 1970 (CEQA)*. This environmental review process was conducted and the attached Initial Study was prepared in accordance with the State *CEQA Guidelines.*

BASIS OF FINDINGS: The Initial Study finds that all potentially significant impacts that could be caused by the project can be reduced to less-than-significant levels with implementation of mitigation measures as described in the attached Initial Study and to be incorporated into the project plans and specifications. The following mitigation measures will be incorporated into the project design or as conditions of approval, to ensure that any potential environmental impacts will not be significant.

Impact and Mitigation

Impact 1 - Biological Resources: Special Status Plant Species. The robust Spineflower and Monterey Spineflower are known to occur in close proximity to the proposed project and the project site supports suitable habitat. Presence or absence could not be determined during the October/November 2018 field visits, as this was outside the blooming period for these annual plant species.

Mitigation Measure 1: Prior to construction, a plant survey shall be conducted during April, May and June to determine presence/absence of robust or Monterey Spineflower. If the species are not found to be present, no additional measures are required. If either species is found within the project area, the District will identify an alternative well site/water line/roadway work area that avoids impacting the species. If impacts to the species cannot be avoided, the District will confer with USFWS and CDFW on a habitat mitigation plan. A mitigation plan shall be prepared that outlines measures to collect seed and re-establish Spineflower colonies in a nearby protected area. The plan shall be reviewed and approved by CDFW and USFWS prior to any site construction. Implementation of the plan shall be subject to monitoring and reporting for a minimum of 5 years, with remedial actions identified if species re-establishment is not successful within 5 years

Impact 2 - Biological Special Status Wildlife Species. The proposed water pipeline through the oak woodland provides potential upland habitat for the Santa Cruz long-toed salamander, but no potential breeding habitat. The temporary disturbance to this habitat has the potential to impact individuals of this species, if any are present at the time of construction. The area of temporary disturbance is approximately 13,200 square feet (0.30 acre)

Mitigation Measure 2: Conduct the vegetation removal in the oak woodland for the pipeline trench during the non-rainy time of year, usually mid-April to mid-October. Implement measures BIO-4 and BIO-5 for revegetation of the oak woodland habitat.

Impact 3 - Biological Special Status Wildlife Species San Francisco dusky footed woodrat is a California Special of Special Concern. No woodrat houses were observed in the proposed project work area; however, the work may not commence for a couple of years and woodrats may colonize the area prior to construction

Mitigation Measure 3: Have a qualified biologist conduct a survey of the disturbance area within the oak woodland prior to commencement of work. If any occupied woodrat nests are observed within 10 feet of the construction, they should be avoided or, if avoidance is not feasible. The nest shall be disassembled by hand by a biologist, upon prior written approval from CDFW.

Impact 4, 5, and 6 - Impact Oak Woodland. The oak woodland is a sensitive habitat as per CDFW. The woodland supports coast live oaks and Shreve oaks. The proposed project will remove one 12"-diameter coast live oak. The following measures are identified to avoid or reduce potential indirect impacts to the oak woodland from the project.

Mitigation Measure 4: The project shall implement standard erosion control BMP's and oak woodland habitat protection measures prior to, during, and after the construction period to minimize impacts to oak trees and the oak woodland, including:

1) Install plastic mesh fencing at the limit of work area to prevent inadvertent impacts to the adjacent woodland vegetation and injury to adjacent native trees. Protective fencing shall be in place prior to ground disturbances and removed once all construction is complete. During construction, no grading, construction or other work shall occur outside the designated limits of work.
2) Minimize removal of oak trees and limbing of oak tree limbs through the careful design of the water line trench route and well site features.
3) No excess soil, chemicals, debris, equipment or other materials shall be dumped or stored outside the designated limits of work.
4) An arborist shall be on site during tree trimming, trenching and grading. As per an arborist's directions, hand tools shall be used to trim oak tree roots encountered during excavation (vs. ripping roots with excavator/backhoe). Where a ditching machine is to run close to trees, the wall of the trench adjacent to the tree shall be hand trimmed, making clean cuts through roots 1 inch and larger in diameter. Where feasible, roots 2 inches and larger diameter shall be tunneled under and shall be heavily wrapped with peat and burlap to prevent scarring and drying. Measures shall be implemented to minimize spread of *Phytopthora* during

tree and root trimming. All other measures as identified by the on-site arborist shall be implemented.

5) All staging of equipment and materials, and refueling of equipment, shall be located in existing roadways and parking areas. The contractor shall prepare and implement a fuel spill prevention and clean-up plan.

6) Implement erosion control on disturbed areas. Utilize an erosion control seed mix that contains locally native plant species on the approximately 13,200 square feet of temporarily disturbed area. Suitable grass species include California brome (*Bromus carinatus)*, purple needlegrass (*Stipa pulchra)*, and blue wild rye (*Elymus glaucus)*. Sterile barley (*Hordeum vulgare)* or sterile wheat (*Triticum x Elymus)* can be added to the native species to provide short-term erosion control.

Mitigation Measure 5: Implement compensatory mitigation for impacts to the oak woodland to achieve the following:

1) Provide a minimum oak tree replacement ratio of 2:1 (i.e., if one oak is removed, replant two oak trees). Provide supplemental irrigation for planted trees in Years 1-3, or longer if there is an unseasonable drought or other unforeseen circumstances occur that requires a longer irrigation period.
2) Utilize plant propagules collected from the greater Aptos Creek watershed and/or Santa Cruz County in the revegetation efforts. Obtain plants from native plant nurseries that employ Best Management Practices (BMP's) that control or eliminate the diseases caused by *Phytopthora ramorum*, as outlined by the California Oak Mortality Task Force.
3) Maintain 100% survival of installed container stock in Years 1-5. Install replacement plants if needed to meet survival rates. If substantial replanting is necessary, the maintenance and monitoring period may need to be extended so that each plant is maintained and monitored for 5 years.
4) Control cover of target invasive weeds (e.g., thistles and others) to less than 5% each year.
5) Maintain and monitor the site annually for 5 years, or longer until success criteria have been met. Submit annual reports to CDFW by December 31 of each monitoring year.

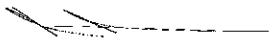
Mitigation Measure 6: Trees to be retained that are located adjacent to construction shall be protected during construction, as directed by an arborist (se BIO-4). If inadvertent damage to trees occurs, a remediation program should be developed by the arborist and implemented; the measures shall be inspected by the arborist to determine the success of the remedial measures.

Impact 7 - Migratory Birds. Nesting birds may occur in the oak tree to be removed as well as in the woodland adjacent to the project site. Removal of trees and other vegetation to accommodate the project has the potential to kill or injure nesting birds, if any are present in the construction area. Noise from construction has the potential to cause abandonment by adult birds of chicks or eggs in areas of close proximity to construction. Because most nesting birds are protected by the Migratory Bird Treaty Act, measures are listed in BIO-7 to avoid potentially significant impacts if any are present during construction.

Mitigation Measure 7: To avoid impacting nesting birds, if present, schedule construction to occur between August 1 and March 1 of any given year, which is outside the bird nesting season. If this is not practical, a qualified biologist will conduct preconstruction bird nesting survey no more than 14 days prior to construction. If the biologist determines that active bird nests will be impacted by the construction, the biologist will recommend a buffer in that area to protect the nesting birds. Once the biologist determines that all birds have fledged the nest, vegetation removal may proceed.

Impact 8 - Geology and Soils: Grading and excavation may result in erosion if not properly managed.

Mitigation Measure 8: Incorporate erosion control measures in the project construction plans and specifications and implement during construction, including but not limited to measures outlined in the geotechnical report, including but not limited to: limiting the area of ground disturbance and vegetation removal at any one time during construction; installing silt fences or other barriers to prevent soils from leaving the project site; conducting work prior to the rainy season if possible and protecting disturbed areas during the rainy season; and immediately revegetating disturbed areas.

By:  1/15/2019

Ralph Bracamonte **Date:**
Central Water District
400 Cox Road, P.O. Box 1869
Aptos, CA 95001-1869
admin@centralwaterdistrict.us.com

INITIAL STUDY/ENVIRONMENTAL CHECKLIST
CENTRAL WATER DISTRICT

CONTENTS

I. BACKGROUND & PROJECT DESCRIPTION

1. Project Title:
Well #14 Project

2. Lead Agency Name and Address:
Central Water District
400 Cox Road, P.O. Box 1869
Aptos, CA 95001-1869

3. Contact Person and Phone Number:
Ralph Bracamonte
Central Water District
400 Cox Road, P.O. Box 1869
Aptos, CA 95001-1869
831-688-2767
admin@centralwaterdistrict.us.com

4. Project Location:
7200 Freedom Blvd, Aptos CA 95003,
Santa Cruz County APN 041-242-21 (See map in attached Initial Study)

5. Project Applicant's/Sponsor's Name and Address:
Central Water District ' Same Address As Above

6. General Plan Designation:
Rural Residential (R-R), Agriculture (A)

7. Zoning:
Rural Residential (R-R), Agriculture (A)

8. Description of Project:
The proposed project consists the construction of a 600 feet deep 12" diameter well casing, well pump station, electrical system and 8 inch diameter pipeline to the existing water distribution system of Central Water District, Aptos, California. The project is shown on **Figure 3 and Figure 4.** This well will be a replacement well for Central Water District Well #4 and #10 which have severe water quality problems and will be retired.

The proposed 8" pipeline will connect to the existing pipeline in Freedom Boulevard and run approximately 900 feet in a buried trench to the new concrete block building which will contain the electrical systems and a double contained chlorine solution tank and pump. The pipeline will be contained in a 30 foot wide easement which will also contain a buried 4" PG&E electrical conduit. The well will be located outside the building and will contain a submersible pump with a capacity of about 500 gallons per minute.

Access to the well site will be from a paved driveway from Freedom Blvd. An emergency engine generator will not be included in the project.

The well should take about 3 months to construct. The remaining work including pipelines, well building, chlorination system and startup should take about 6 months.

Well drilling fluids and test pumped well water will be stored on site in temporary tanks and will be disposed of off-site in approved sites.

Once construction is completed, the site will be visited daily when pumping to observe all equipment and condition of constructed facilities.

Wells #4 and #10 will be placed on standby status and will be destroyed in the future in accordance with well abandonment requirements.

9. Surrounding Land Uses And Setting:
The surrounding area is rural residential with a church adjacent to new well site.

10. Public Agencies Whose Approval or Review Is Required:

California Water Resources Control Board, Drinking Water Branch:
Review/Approval of Change in Water System Operation Permit
County of Santa Cruz:
Potential Encroachment Permit for Work in Public Right-of-way

As a public water service district, the Central Water District is not required to obtain development permits from the County of Santa Cruz [pursuant to Santa Cruz County Code section 13.10.140(b) and California Government Code section 53091(e)].

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?
No

12. Initial Study Preparation:
Freitas + Freitas Engineering and Planning Consultants, Inc.
3233 Valencia Road, A1
Aptos, CA 95003
831-688-1168
fr8tus@aol.com

13. Background:
Central Water District, with an estimated population of 2,700, presently serves 815 customers with 892 domestic, fire, irrigation, public and commercial service connections. Situated in the foothills of the Santa Cruz Mountains east of Aptos, it covers a service area of approximately five square miles. **Figure 1** shows the location of Central Water District.

The elevation of the service area ranges from a low of about 150 feet to over 1,100 feet above sea level. Most customers are residential users located on rural sites of one acre or more. The Aptos Pines Mobile Home Park and Parkhurst Terrace consist of 238 units and collectively consume 10.3 million gallons a year. We serve three churches, one cemetery, a high school and one governmental agency, the California Highway Patrol. The District also has five commercial accounts that consume 2.47 million gallons of water annually. Agricultural customer use is around 10.29 million gallons. **Figure 1** shows a map of Central Water District.

In terms of future growth, very little new area, with the possible exception of restricted agricultural land, will be annexed to the District. In fact, the Sphere of Influence established for the District by the Local Agency Formation Commission (December 1986) has reduced the potential ultimate size of the District. However, the present service area does provide for possible infilling with new residential customers. The North Santa Cruz County Water Master Plan Study- Final Report, June 1985, estimated that, considering the Santa Cruz County General Plan densities, the District could expect

918 customers by the year 2000 and 944 customers at buildout. These figures average 18 new customers annually, a growth rate substantially higher than the rate the District has experienced in the past 30 years. As of June 30, 2016, the total number of active services was 892. This figure includes multiple connections that include 82 fire services, 15 irrigation services, 9 commercial services and 4 public facility services.

Central Water District is one of only two districts in Northern Santa Cruz County capable of meeting the demand for water at buildout with facilities then in place. A 1994 Central Water District buildout study, based upon a computer-generated model of the District highlighting vacant parcels, indicates that the earlier projections were overstated. Santa Cruz County has designated the majority of the area within Central Water District boundaries as a Primary Recharge Area, limiting future parcel size to a ten-acre minimum. The District could see an increase in additional dwelling units (ADUs) in the coming years. The County of Santa Cruz Planning Department has streamlined the permitting process for ADU construction.

In general, customers of the District use more water than urban residents, owing to larger home sites, bigger dwellings, and more landscaping or garden areas. In addition, the sandy soil requires more than average volumes of water to irrigate. The average daily consumption per residential service during the fiscal year was 318 gallons. The usage for Aptos Pines Mobile Home Park and Pankhurst terrace is 119 gallons per day per residence. The average annual usage was 35,736 gallons per acre within the District's five square miles (3,200 acres). Per capita usage averaged 116 gallons per day for residential customers. In February 2015, the average per capita usage in San Francisco Bay Area was 57.9 gallon. On the other high end, the Colorado River Region average usage was at 165.6 gallons. Locally, Santa Cruz City residents water usage averaged 44 gallons per person. Our customer usage might be higher than other local agencies but it is important to consider that a substantial portion of this water is recycled to the aquifer through septic system recharge. It is also worth noting that large portions of the Pleasant Valley area are irrigated to support apple and grape crops. The District is a sparsely populated area almost entirely dependent upon septic systems, so export of wastewater to the Monterey Bay and the impact upon groundwater resources are minimal or none. An in-depth 2004 hydrological report prepared for the Soquel Creek Water District revealed that consumptive use was an important factor in determining impact on groundwater conditions. The report stated that a substantial portion of the water that Central Water District extracted was returned (47% in 1997). In further studies conducted in the past few years the percentage is closer 75%.

The Central Water District has monitored groundwater resources since its inception in 1950 and is currently designated to manage the groundwater resources within its boundaries. In March 1995, Central Water District entered into a Joint Exercise of Powers Agreement (JPA) with Soquel Creek Water District to prepare a groundwater management plan for the Soquel Aptos Area consistent with Assembly Bill 3030.

The Santa Cruz Mid-County Groundwater Agency (MGA) was established in 2016 to serve as the Groundwater Sustainability Agency (GSA) for the mid-county groundwater basin. The MGA was formed by a Joint Exercise of Powers Agreement entered into by the County of Santa Cruz, City of Santa Cruz, Central Water District and Soquel Creek Water District, effective March 17, 2016.

In addition to groundwater management, the District conducts a water quality monitoring program with results distributed to District customers through an Annual Water Quality Report. The District also conducts a backflow prevention program to ensure protection of the water quality within its distribution system.

Facilities

The District's distribution system consists of approximately 23.2 miles of 2 to 10-inch diameter pipe. Most mains are in good condition and of adequate size. The 24,000 feet of 6-inch steel pipe installed in the 1950s requires the most maintenance. This pipe is known as "surplus WWII invasion pipe" and is scheduled to be replaced as soon as revenues allow.

Pertinent water main details are shown on the below:

Size and Type	Length	Percentage
2" galvanized	3,500'	2.8%
4" steel	1,600'	1.3%
4" polyvinylchloride	8,550'	6.9%
4" asbestos cement	9,600'	7.8%
6" cast iron	1,400'	1.1%
6" steel	24,000'	19.5%
6" polyvinylchloride	11,300'	8.4%
6" asbestos cement	33,700'	27.5%
8" polyvinylchloride	7,430'	6.0%
8" asbestos cement	19,800'	16.1%
10" polyvinyl chloride	2,600'	2.5%
Total	**123,480' or 23.3 miles**	

The distribution system is separated into five pressure zones. Each zone is supplied either by pressure-reducing valves or by a combination of booster pumps and storage tanks.

The storage facilities of the District consist of seven storage tanks with a total capacity of 1.217 million gallons. The size of these tanks ranges from 1,800 to 500,000 gallons and they are constructed of polyethylene or steel. According to the State of California Department of Water Resources, the total storage capacity is adequate not only for current needs but also for the storage demands at buildout. Storage reservoir data follows:

Name	Capacity	Type	Base Elev.	Built
Morrison	500,000 g	Steel	510'	1973
Day#1	100,000 g	Steel	780'	1970
Day#2	300,000 g	Steel	777'	1986
Rob Roy	250,000 g	Steel	424'	1972
Primary	60,000 g	Bolted Steel	492'	2001
Maintenance Dist.	5,000 g	Steel	614'	1993
Redwood Hts.	1,800 g	Polyethylene	560'	1995

Six wells provide the District's water supply. Wells #2, #3 and #5 are located in the Cox Road Well Field and Wells #4, #10 and #12 are in the Rob Roy Well Field at the intersection of Soquel Drive and Freedom Boulevard. Wells #2, #3 and #5 are inactive because of the high iron content of the water. Production from Well #12 on Freedom Boulevard has, for the most part, replaced production from the Cox Road Well Field, thereby improving water quality to customers in the higher elevations.

Water produced from the Cox Road Well Field exceeds the maximum limits of the State of California Standards for iron and manganese, the water was blended with the water from the Rob Roy Wells to produce water with lower levels of iron and manganese. But due to the high levels in the blended water the wells in the Purisima Aquifer have been placed as inactive and been detached from distribution system.

The static level of the water table in the Cox Road Well Field is currently higher than the highest levels previously recorded (1967 /68), a condition the District hydrologist attributes to a major shift in production to the Rob Roy Well Field.

The District wells in the Aromas Aquifer have not seen a decline in the water table even after a four-year drought. This is directly attributed to our customers cutting back usage by 30%.

II. ENVIRONMENTAL SETTING

The approximate 0.84-acre (36,787 square feet) project site is located easterly of the intersection of Aptos High School access Road and Freedom Boulevard in south western Santa Cruz County. The parcel surrounding the new well is a church that accesses Freedom Boulevard. Single-family homes on larger lots are located in the vicinity in an area that is generally characterized as semi-rural.

The existing site topography and features, including the siting of the existing facilities, are shown on **Figure 3 and Figure 4**.

The parcel has an average slope gradient of about 10 percent (SOURCE V.7). The property supports small tan oaks. East of the parcel, the slope continues to a steep 4-foot by 6-foot high cut slope along Woodland Drive.

The site is shown in the following photographs:

Photograph #1
Site of New Well Showing Test Well

Photograph #2
View of Pipeline Alignment to Freedom Blvd.

III. ENVIRONMENTAL CHECKLIST

Environmental Factors Potentially Affected by the Project:

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 an asterisk (*) below and on the checklist on the following pages.

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

Instructions to Environmental Checklist

1. A brief explanation is required (see VI. E planation of Environmental Checklist Responses) 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 (see V. Source List, attached). 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 will 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 any effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. Negative Declaration: Less Than Significant With Mitigation Incorporated applies where 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 e plain how they reduce the effect to a less than significant level.

5. Earlier Analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case a discussion should identify the following on attached sheets:

   a) Earlier Analysis used. Identify earlier analyses 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 Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the e tent 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. The explanation of each issue should identify:
   a) The significance criteria or threshold, if any, used to evaluation each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significance.

ENVIRONMENTAL IMPACTS **Issues (and Supporting Information Sources):**	**Potentially Significant Issues**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
1. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?				√
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				√
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				√
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				√
2. AGRICULTURE AND FOREST 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 Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement Methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? (V.3)				√
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				√
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))?				√
d) Result in the loss of forest land or conversion of forest land to non-forest use?				√
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?				√
3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				√

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.			√	
c) Expose sensitive receptors to substantial pollutant concentrations.			√	
d) Result in other emissions (such as those leading objectionable odors adversely affecting a substantial number of people?			√	
e) Result in Odors			√	
4. 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 Game or U.S. Fish and Wildlife Service?			√	
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 Game or U.S. Fish and Wildlife Service?			√	
c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				√
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?			√	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				√
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?				√
5. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?				√
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?			√	
c) Disturb any human remains, including those interred outside of formal cemeteries?				√
6. 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??				√
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				√
7. 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 Publication42. (V.Ic) ii. Strong seismic ground shaking? iii. Seismic-related ground failure, including liquefaction? iv. Landslides?				√ √ √ √
b) Result in substantial soil erosion or the loss of topsoil?				√
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?				√
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?				√
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?				√
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				√
8. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			√	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				√
9. 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?				√
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?				√
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ miles of an existing or proposed school?				√
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				√
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				√

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.				√
g) Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?				√
10. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?				√
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				√
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; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff or; (iv) impede or redirect flood flows?				√ √ √ √ √
11. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?				√
b) Cause a significant environmental impact due to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				√
12. 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? (V.2c)				√
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?				√
12. NOISE: Would the project:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?			√	
b) Generation of excessive ground borne vibration or ground borne noise levels?				√
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?				√

14. POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for e ample, by proposing new homes and businesses) or indirectly (for e ample, through e tension of roads or other infrastructure)?				√
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				√
15. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physical 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:				
a) Fire protection?				√
b) Police protection?				√
c) Schools?				√
d) Parks?				√
e) Other public facilities?				√
16. RECREATION. Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				√
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				√
17. TRANSPORTATION. Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, inding transit, roadway, bicycle and pedestrian facilities?				√
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?				√
c) Substantially increase hazards due to a geometric design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?				√
d) Result in inadequate emergency access?				√

18. TRIBAL CULTURAL RESOURCES:				
a) 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: i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				√
19. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm drainage, electric power, natural gas or telecommunications facilities, the construction or relocation which could cause significant environmental effects?			√	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.				√
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?				√
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?				√
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				√
20. 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?				√
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?				√
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?				√

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?				√
21. MANDATORY FINDINGS OF SIGNIFICANCE. Would the project:				
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or				√
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)				√
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				√

IV. DETERMINATION

On the basis of this initial evaluation:

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

1/15/19

Ralph Bracamonte — Date
District Manager

V. REFERENCES AND DATA SOURCE LIST

Agency Plans & Reports

1. **Central Water District. 2016 Annual Report**
   https://sites.google.com/view/centralwaterdistrict/home?authuser=0
2. **County of Santa Cruz.**
   a) Adopted by Board of Supervisors 5/24/94. Certified by California Coastal Commission 12/5/94. *1994 General Plan and Local Coastal Program for the County of Santa Cruz, California.* Available Online at: http://www.sccoplanning.com/PlanningHome/SustainabilityPlanning/GeneralPlan.asp
   b) Approved by Board of Supervisors February 23, 2013. *Climate Action Strategy.* Prepared by Planning Department. Available Online at: http://www.sccoplanning.com/Portals/2/County/Planning/policy/Climate%20Action%20Strategy/Climate%20Action%20Strategy.pdf
   c) 2015. County of Santa Cruz Geographic Information System (GIS). Available Online at: http://www.co.santa-cruz.ca.us/default.asp ?tabid=93
3. **California Department of Conservation.** 2013. Farmland Mapping and Monitoring Program. Available Online at: http://www.conservation.ca.gov/dlrp/fmmp/Pages/county_info.asp
4. **Monterey Bay Air Pollution Control District.**
   a) 2015. NCCAB Area Designations and Attainment Status. Available Online at: http://mbuapcd.org/wp-content/uploads/2015/01/attainment-status-january-2015.pdf\
   b) April 17, 2013, Adopted. Triennial Plan Revision 2009 ´ 2011. Final.
   c) August 2008. *2008 Air Quality Management Plan for the Monterey Bay Region.*
   d) February 2008. CEQA Air Quality Guidelines.
   e) April 30, 2012, Update on District GHG Threshold Development.

Project Plans & Studies

5. **Freitas + Freitas Engineering and Planning Consultants, Inc.**

Initial Study Preparation:

6. **Freitas + Freitas Engineering and Planning Consultants, Inc.**

Biotic Study

7. **Biotic Resources Group** of Soquel, California

VI. EXPLANATION OF ENVIRONMENTAL CHECKLIST RESPONSES

1. Aesthetics

(a) Scenic Views – No Impact. The project site is located in a rural mountainous area in central Santa Cruz County. The project site is not located within a scenic vista or view corridor as designated by the County of Santa Cruz (SOURCE V.2a & 2b), and there are no officially designated scenic highways in the immediate vicinity of the project site. Highway 1 (State Route 1) is located about one mile to the west of the project site and is eligible for designation as a scenic highway. Highway 1 is a designated scenic road in the County of Santa Cruz General Plan (SOURCE V.2a).

The project site is not visible from Highway 1. Due to the steep terrain, the site is not visible from any public viewpoints, but only is visible within the immediate adjacent surrounding properties. The project site is not visible from a designated vista point nor is it within a scenic view. The project is generally screened from view by existing topographical and elevation changes as well as tree cover. The project would not obstruct or remove scenic views as none exist in the area, and therefore, the project would have no effect on scenic views.

(b) Scenic Resources – No Impact. The project site is located within a wooded area, consisting of primarily of oak trees. The project site contains approximately 13 trees all are small tan oak trees that are generally 12 inches in diameter or less in size.

The project will result in removal of three small oak trees to accommodate the new pump station site and pipeline routes.

These include four redwood and five tan oak trees. While any tree may possess aesthetic qualities, the trees that would be removed are not unusual for their species or visually distinctive or prominent from a wide area or from public view corridors. Therefore, the trees are not considered scenic resources, and the removal would not result in an impact to a scenic resource.

(c) Effects on Visual Character of Surrounding Area – No Impact. The project site is located within an oak forest in the Santa Cruz Mountains. The visual character of the surrounding area is characterized by mountainous terrain and single- family homes on larger lots. Due to the steep terrain in the area and intervening topography and tree cover, the project site is not visible from any public viewpoints, but only is visible within the immediate adjacent surrounding properties.

(d) Create New Source of Substantial Lighting or Glare – No Impact. The proposed well pump station does not include lighting. Thus, the project would not result in impacts related to creation of a new source of light or glare.

2. Agriculture & Forest Resources

(a, b, e) Agricultural Lands – No Impact. The project site is located in a forested rural area and is not in agricultural production or located adjacent to or near agricultural lands. The project site does not contain any lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. In addition, the project does not contain Farmland of Local Importance or Grazing Land that would be converted to a non-agricultural use. The project site is designated Other Land, which is not an agricultural designation (SOURCE V.3). There are no Williamson Act contracts on the property. Thus, the proposed project would not result in or lead to the conversion of agricultural lands.

(c, d, e) Forest Resources – No Impact. The project site is not zoned as Timberland Preserve, and is not located adjacent to lands zoned Timberland Preserve. Thus, the project would not conflict with zoning of lands that have a Timberland Preserve designation. The site is not identified as having timber resources in the County's GIS mapping system (SOURCE V.2c). As indicated above in subsection 1(b), three trees would be removed all of which are small tan oak trees. These trees are not considered to be forest resources or forest land under state definitions; the site and surrounding forestland are not managed for the production of forest products or traditional forest uses, but are comprised of residential uses within a wooded setting. Thus, the proposed project would not result in or lead to conversion of forest lands.

3. Air Quality

(a) Consistency with Air Quality Plans – No Impact. The Monterey Bay Area Air Resources District (MBARD) prepares and updates an air quality plan, which addresses attainment of the state and federal emission standards. The plan accommodates growth by projecting growth in emissions based on different indicators, such as population and housing growth. The project consists of installation of a new well, pump station and pipeline to serve existing development. The project will not result in new structural development, and will not result in new population growth. Thus, the project would not conflict with or obstruct implementation of the existing air quality management plan for the region.

(b,c and d) Project Emissions – Less-than-Significant Impact. Federal and state ambient air quality standards (AAQS) address six criteria pollutants, including ozone, carbon mono ide, nitrogen dioxide, sulfur dioxide, fine particulate matter (both PM10 and PM2.5, which refer to particles less than 10 microns and 2.5 microns, respectively), and lead. The state standards, which are generally more stringent than the federal standards, apply to the same pollutants as the federal standards do, but also include sulfate, hydrogen sulfide, and vinyl chloride.

The North Central Coast Air Basin (NCCAB), in which the project site is located, is under the jurisdiction of the MBARD and includes Santa Cruz, Monterey and San Benito Counties. The NCCAB is currently in attainment or unclassified for the all federal criteria pollutant standards (SOURCE V.4a). The basin is designated non-attainment for the state ozone and PM10 standards, and is in attainment for all other state standards, except for carbon monoxide for which it is unclassified (SOURCE V.4b).

Impact Analysis. The proposed project would result in installation of a new well, pump station and pipeline. The project would not result in new structural development. Minimal emissions would occur from periodic Water District staff maintenance trips to the site, but the project would not result a new of stationary source of emissions and would have no significant long-term operational phase impacts on air quality.

Project construction would result in short-term, localized increases in exhaust emissions due to construction activities, but would not exceed construction emission thresholds as explained below. This is considered a less-than-significant impact as discussed below. Construction projects generally have the potential to cause short-term increases in exhaust emissions from worker trips to and from the construction site, construction equipment, and grading and site preparation activities that can generate fugitive dust, which may increase volatile organic compounds (VOC) or nitrogen o ides (No), the precursors of ozone. The

MBUAPCD does not generally require projects to quantify VOC and NO emissions from typical construction equipment, because these temporary emissions have been accommodated in State and federally required air plans (SOURCE V.4c).

Construction activities would involve limited equipment and site disturbance. Equipment expected to be used is limited to a small grader/excavator for grading and installation of well and pipelines. Project construction would result in grading and site disturbance of approximately 0.05 acres for installation the new well. The MBUAPCD and its CEQA Air Quality Guidelines indicate that 8.1 acres may be graded per day with minimal earthmoving or 2.2 acres per day with grading and excavation without exceeding the PM10 threshold of 82 lbs/day, which could result in a significant effect. The area of disturbance, grading or excavation, are well below these thresholds. Therefore, no significant impacts related to emissions would occur, and no mitigation measures are required.

(d) Sensitive Receptors – Less-than-Significant Impact. The project site is located within a rural residential area with single-family homes to the west, east and south of the project site. As indicated above, the proposed project would not result in stationary emissions. Thus, the proposed project will not expose sensitive receptors to substantial pollutant concentrations. For CEQA purposes, a sensitive receptor is defined as any residence, including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (k-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes (SOURCE V.4d).

Diesel particulate matter was identified as a toxic air contaminant (TAC) by the State of California in 1998. Diesel exhaust is emitted from a broad range of on- and off-road diesel engines. Following the identification of diesel as a TAC, the California Air Resources Board (CARB) developed a comprehensive strategy to control diesel PM emissions. The Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (approved by CARB in September 2000) set goals to reduce diesel PM emissions in California by 75% by 2010 and 85% by 2020. This objective would be achieved by a combination of approaches (including emission regulations for new diesel engines and low sulfur fuel program). Since approval of the Diesel Risk Reduction Plan, CARB has adopted regulations for in-use, off-road diesel vehicles that will significantly reduce particulate matter emissions. In July 2007, the ARB adopted regulations for in-use, off-road diesel vehicles that will significantly reduce particulate matter emissions by requiring fleet owners to accelerate turnover to cleaner engines and install exhaust retrofits.

Impact Analysis. Project grading and construction could involve the use of diesel trucks and equipment that will emit diesel exhaust, including diesel particulate matter, which is classified as a toxic air contaminant. Nearby residents could potentially be exposed to construction-related diesel emissions. However, construction activities that would use diesel equipment would be temporary and of short-term duration. Thus, potential exposure to adjacent sensitive receptors is considered a less-than-significant impact as explained below.

Construction-related diesel emissions would be of limited duration (i.e., primarily during grading) and would be temporary. CARB has identified diesel exhaust particulate matter as a toxic air contaminant, and assessment of toxic air contaminant cancer risks is typically based upon a 70-year exposure period. Project grading and construction activities that would utilize diesel-powered equipment would e pose receptors to possible diesel exhaust for a very limited number of days over the estimated 6-month construction period. Because exposure to diesel exhaust will be well below the 70-year exposure period, and given the limited, intermittent and short-term duration of construction activities that would use diesel equipment, construction-related diesel emissions are not considered significant. Furthermore, the State has been implementing emission standards for different classes of on- and off-road diesel vehicles and equipment that applies to off-road diesel fleets and includes measures such as retrofits that continue to reduce diesel emissions. Additionally, Title 13 of the California Code of Regulations (section 2485(c)(1)) prohibits idling of a diesel engine for more than five minutes in any location.

Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations. Potential exposure of sensitive receptors to diesel emissions and associated risks is considered a less-than-significant impact, and no mitigation

measures are required.

(e) Odors – No Impact. According to the MBARD CEQA Guidelines, land uses associated with odor complaints typically include landfills, agricultural uses, wastewater treatment plants, food processing plants, chemical plants, refineries, and landfills (SOURCE V.4d). The proposed project does not include construction activities that are generally associated with the creation of objectionable odors. Upon completion of construction, there would be no long-term operations associated with the installation of a new well, pump station and pipeline that would result in generation of odors.

4. Biological Resources

A **Biotic Report** was prepared for this project by **Biotic Resources Group** of Soquel, California. A copy of this report is included with this report. Shown below are the Environmental Impacts, Mitigation Measures and Significance Determinations form this report:

a) **Special Status Plant Species.** The robust spineflower and Monterey spineflower are known to occur in close proximity to the proposed project and the project site supports suitable habitat. Presence or absence could not be determined during the October/November 2018 field visits, as this was outside the blooming period for these annual plant species.

Mitigation Measure -1: Prior to construction, a plant survey shall be conducted during April, May and June to determine presence/absence of robust or Monterey spineflower. If the species are not found to be present, no additional measures are required. If either species is found within the project area, the District will identify an alternative well site/water line/roadway work area that avoids impacting the species. If impacts to the species cannot be avoided, the District will confer with USFWS and CDFW on a habitat mitigation plan. A mitigation plan shall be prepared that outlines measures to collect seed and re-establish spineflower colonies in a nearby protected area. The plan shall be reviewed and approved by CDFW and USFWS prior to any site construction. Implementation of the plan shall be subject to monitoring and reporting for a minimum of 5 years, with remedial actions identified if species re-establishment is not successful within 5 years.

Special Status Wildlife Species. The proposed water pipeline through the oak woodland provides potential upland habitat for the Santa Cruz long-toed salamander, but no potential breeding habitat. The temporary disturbance to this habitat has the potential to impact individuals of this species, if any are present at the time of construction. The area of temporary disturbance is approximately 13,200 square feet (0.30 acre).

Mitigation Measure -2: Conduct the vegetation removal in the oak woodland for the pipeline trench during the non-rainy time of year, usually mid-April to mid-October. Implement measures BIO-4 and BIO-5 for revegetation of the oak woodland habitat.

San Francisco dusky footed woodrat is a California Special of Special Concern. No woodrat houses were observed in the proposed project work area; however, the work may not commence for a couple of years and woodrats may colonize the area prior to construction.

Mitigation Measure -3: Have a qualified biologist conduct a survey of the disturbance area within the oak woodland prior to commencement of work. If any occupied woodrat nests are observed within 10 feet of the construction, they should be avoided or, if avoidance is not feasible. The nest shall be disassembled by hand by a biologist, upon prior written approval from CDFW.

b) **Oak Woodland.** The oak woodland is a sensitive habitat as per CDFW. The woodland supports coast live oaks and Shreve oaks. The proposed project will remove one 12"-diameter coast live oak. The following measures are identified to avoid or reduce potential indirect impacts to the oak woodland from the project.

Mitigation Measure -4: The project shall implement standard erosion control BMP's and oak woodland habitat protection measures prior to, during, and after the construction period to minimize impacts to oak trees and the oak woodland, including:

1) Install plastic mesh fencing at the limit of work area to prevent inadvertent impacts to the adjacent

woodland vegetation and injury to adjacent native trees. Protective fencing shall be in place prior to ground disturbances and removed once all construction is complete. During construction, no grading, construction or other work shall occur outside the designated limits of work.

2) Minimize removal of oak trees and limbing of oak tree limbs through the careful design of the water line trench route and well site features.
3) No excess soil, chemicals, debris, equipment or other materials shall be dumped or stored outside the designated limits of work.
4) An arborist shall be on site during tree trimming, trenching and grading. As per an arborist's directions, hand tools shall be used to trim oak tree roots encountered during excavation (vs. ripping roots with excavator/backhoe). Where a ditching machine is to run close to trees, the wall of the trench adjacent to the tree shall be hand trimmed, making clean cuts through roots 1 inch and larger in diameter. Where feasible, roots 2 inches and larger diameter shall be tunneled under and shall be heavily wrapped with peat and burlap to prevent scarring and drying. Measures shall be implemented to minimize spread of *Phytopthora* during tree and root trimming. All other measures as identified by the on-site arborist shall be implemented.
5) All staging of equipment and materials, and refueling of equipment, shall be located in existing roadways and parking areas. The contractor shall prepare and implement a fuel spill prevention and clean-up plan.
6) Implement erosion control on disturbed areas. Utilize an erosion control seed mix that contains locally native plant species on the approximately 13,200 square feet of temporarily disturbed area. Suitable grass species include California brome (*Bromus carinatus)*, purple needlegrass (*Stipa pulchra)*, and blue wild rye (*Elymus glaucus)*. Sterile barley (*Hordeum vulgare)* or sterile wheat (*Triticum x Elymus)* can be added to the native species to provide short-term erosion control.

Mitigation Measure -5: Implement compensatory mitigation for impacts to the oak woodland to achieve the following:

1) Provide a minimum oak tree replacement ratio of 2:1 (i.e., if one oak is removed, replant two oak trees). Provide supplemental irrigation for planted trees in Years 1-3, or longer if there is an unseasonable drought or other unforeseen circumstances occur that requires a longer irrigation period.
2) Utilize plant propagules collected from the greater Aptos Creek watershed and/or Santa Cruz County in the revegetation efforts. Obtain plants from native plant nurseries that employ Best Management Practices (BMP's) that control or eliminate the diseases caused by *Phytopthora ramorum*, as outlined by the California Oak Mortality Task Force.
3) Maintain 100% survival of installed container stock in Years 1-5. Install replacement plants if needed to meet survival rates. If substantial replanting is necessary, the maintenance and monitoring period may need to be extended so that each plant is maintained and monitored for 5 years.
4) Control cover of target invasive weeds (e.g., thistles and others) to less than 5% each year.
5) Maintain and monitor the site annually for 5 years, or longer until success criteria have been met. Submit annual reports to CDFW by December 31 of each monitoring year.

Mitigation Measure -6: Trees to be retained that are located adjacent to construction shall be protected during construction, as directed by an arborist (se BIO-4). If inadvertent damage to trees occurs, a remediation program should be developed by the arborist and implemented; the measures shall be inspected by the arborist to determine the success of the remedial measures.

c) **Federally Protected Wetlands.** No federally protected wetlands occur in the project site. No impacts are expected.

d) **Migratory Birds.** Nesting birds may occur in the oak tree to be removed as well as in the woodland adjacent to the project site. Removal of trees and other vegetation to accommodate the project has the potential to kill or injure nesting birds, if any are present in the construction area. Noise from construction has the potential to cause abandonment by adult birds of chicks or eggs in areas of close proximity to construction. Because most

nesting birds are protected by the Migratory Bird Treaty Act, measures are listed in BIO-7 to avoid potentially significant impacts if any are present during construction.

Mitigation Measure -7: To avoid impacting nesting birds, if present, schedule construction to occur between August 1 and March 1 of any given year, which is outside the bird nesting season. If this is not practical, a qualified biologist will conduct preconstruction bird nesting survey no more than 14 days prior to construction. If the biologist determines that active bird nests will be impacted by the construction, the biologist will recommend a buffer in that area to protect the nesting birds. Once the biologist determines that all birds have fledged the nest, vegetation removal may proceed.

e) **Policies or Ordinances.** The District has no ordinances or policies relating to biological resources. The District is not subject to County regulations.

f) **Habitat Conservation Plan.** The project site is not located in an area subject to a Habitat Local Conservation plan, Natural Community Conservation plan or other approved conservation plan. The project site is not located within any designated critical habitat for any federally-listed species.

5. Cultural Resources

(a) Historical Resources – No Impact. The first residents of this area were the Ohlone Indians, who were nomadic hunters and gatherers. They managed grasslands with fire to encourage the growth of seed-bearing annuals and to facilitate hunting. After colonial settlement, from the 1860s through the 1890s, logging was the major land use in the area.

(b) Archaeological and Tribal Cultural Resources – Less-than-Significant Impact. With regards to pre-historic Ohlone settlements, no archeological sites have been observed on lands owned by the Central Water District, and no archaeological sites were identified by an archeological survey completed in 1993 (SOURCE V.1b). According to County Geographic Information System (GIS) data, the site is not located within an archaeological resource area. (SOURCE V.2c).

State Assembly Bill 52, effective July 1, 2015, recognizes that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities. The law establishes a new category of resources in the California Environmental Quality Act called tribal cultural resources that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation. Public Resources Code section 21074 defines a tribal cultural resource as either:

(1) Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Nature American tribe that is either listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or

(2) A resource determined by the lead agency chooses, in its discretion and supported by substantial evidence, to treat as a tribal cultural resource.

The California Public Resources Code section 21084.2 now establishes 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. The Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project.

Impact Analysis. The project site is not located within an area of known archaeological sensitivity or archaeological resources. The project consists of installation of a new well, pump station and pipeline on a site. It is not expected that archeological resources would be encountered during the limited grading for and installation of the replacement tank or that a significant impact would occur. However, in the event that unknown resources are uncovered during construction, the following measure recommended for inclusion in the Project Construction Specifications.

(c) Paleontological/Unique Geological Resources – No Impact. No unique geologic features have been identified in plans or observed on the site. The site is not identified as having paleontological resources in the County's GIS mapping system (SOURCE V.2c). The limited depth of grading and area of disturbance for the proposed project would be minimal,

and the project would have no effect on any unanticipated paleontological resources.

6. Energy

(a) Wasteful, inefficient or unnecessary energy use -No Impact This new facility will no waste energy as it will be equipped with the best energy conserving motors and equipment.

(b) Renewable Energy – No Impact If supplied by the energy provider, renewable energy will be utilized by the facility.

7. Geology and Soils

(ai) Fault Rupture – No Impact. The project site is located in a seismically active region of California and the region is considered to be subject to very intense shaking during a seismic event. The active San Andreas Fault Zone and the potentially active Zayante Fault Zone and Ben Lomond Fault, are located about 6.8 miles, 2.5 miles, and 0.3 miles from the project site, respectively. Since no known faults cross the project site, the potential for surface ground rupture is low (SOURCE V.7).

(aii-iii) Seismic Hazards – Less-than-Significant Impact. A visual site investigation was conducted to evaluate the soil and bedrock conditions at the well and pipeline sites. Potential seismic hazards include liquefaction and damage from strong seismic shaking. As indicated above, since no known faults cross the project site, the potential for surface ground rupture is low. Because of the underlying soil at the project site, the potential for seismically-induced liquefaction at the site is low. The most current California Building Code (CBC) edition design considerations, specifically the seismic factors and coefficients from Chapter 16, Volume II, will be followed during design and construction of the projects.

Impact Analysis. The project would be subject to seismic shaking. The project will not result in construction of any habitable structures, and thus would not expose people or habitable structures to seismic hazards. During a major earthquake there is potential for severe ground shaking at this site. However, the investigation concluded that structures designed in accordance with the most current California Building Code (2013 CBC) should perform adequately during strong seismic shaking (SOURCE V.7).Therefore, exposure to seismic hazards would be less than significant.

(aiv, c) Geologic & Soils Hazards – Less-than-Significant Impact. The site is mapped as 106 Baywood loamy sand from the surface to about 3 feet and the project site is underlain by brown, slightly acid loamy sand and sand to a depth of 7 feet. . Below the topsoil, stiff to very stiff lean clay, clayey silt and siltstone was found at depths of 13 to 16 feet. (SOURCE V.7).

No visual indications of instability of the moderately steep natural slopes at the site were observed.

(b) Erosion – No Impact. According to the 1980 Soil Conservation Survey of Santa Cruz County (U.S. Department of Agriculture), the hazard of erosion is low to moderate for the soils on the project site and surrounding area. The project geotechnical report also indicates that soils at the project site has potential for erosion where unvegetated (SOURCE V.7).

Impact Analysis. The project site will be graded to construct a reinforced concrete well building pad. The project may also include the construction of a base rock surfaced or paved driveway. Grading for the project will consist of sub-excavation of soil in the pad and engineered fill placement and compaction for the well pad, driveway, and associated improvements. Excavation may result in erosion if not properly managed, although the construction site is not situated directly adjacent to a water body. This is a potentially significant impact. An erosion control plan has not yet been completed, but the District has indicated that construction would commence after winter rainy season. Implementation of standard erosion control measures during construction, including but not limited to, recommendations regarding erosion would reduce the potential impact to a less-than-significant level.

MITIGATION MEASURE 8: Incorporate erosion control measures in the project construction plans and specifications and implement during construction including but not limited to: limiting the area of ground disturbance and vegetation removal at any one time during construction; installing silt fences or other barriers to prevent soils from leaving the project site; conducting work prior to the rainy season if possible and protecting disturbed areas during the rainy season; and immediately revegetating disturbed areas.

(d) Expansive Soils – Less-than-Significant Impact with Mitigation. The site is underlain by loose sandy silt and silty lean clay topsoil from the surface to depths of 2 to 4 feet (SOURCE V.7). Below the topsoil, stiff to very stiff lean clay,

clayey silt and siltstone was found at depths of 13 to 16 feet. Test results indicate the soil has 55 to 75 percent fines (clay and silt). The fine grained soils are moderately expansive, difficult to compact and unsuitable for use as structural fill.

Impact Analysis. The soil considerations at project site include the presence of loose near surface soil, providing firm uniform bearing support for the well pad foundations, slope stability, the potential for strong seismic shaking, and providing adequate site drainage. The site also contains moderately expansive soils. This will be included in **MITIGATION MEASURE 8.**

(e) Use of Septic Systems – No Impact. The project consists of the installation of a well and pipelines. The project will not require sanitary sewer service and will not use septic systems.

8. Greenhouse Gas Emissions

(a) Greenhouse Gas Emissions – Less-than-Significant Impact. Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to accumulation of greenhouse house gas (GHG) emissions in the atmosphere. Greenhouse gases trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. Climate change models predict changes in temperature, precipitation patterns, water availability, and rising sea levels, and these altered conditions can have impacts on natural and human systems in California that can affect California's public health, habitats, ocean and coastal resources, water supplies, agriculture, forestry, and energy use.

The State of California passed the Global Warming Solutions Act of 2006 (AB 32), which requires reductions of GHG emissions generated within California. The Governor's Executive Order S-3-05 and AB 32 (Health & Safety Code, § 38501 et seq.) both seek to achieve 1990 emissions levels by the year 2020. Executive Order S-3-05 further requires that California's GHG emissions be 80 percent below 1990 levels by the year 2050. AB 32 defines GHGs to include carbon dioxide, methane, nitrous o ide, hydrocarbons, perfluorocarbons and sulfur hexafluoride.

The California Air Resources Board (CARB) is the lead agency for implementing AB32. In accordance with provisions of AB 32, CARB has completed a statewide Greenhouse Gas (GHG) Inventory that provides estimates of the amount of GHGs emitted to, and removed from, the atmosphere by human activities within California. In accordance with requirements of AB32, a Scoping Plan was adopted by CARB in December 2008 and updated in 2014. The Scoping Plan and 2014 Update identify emissions reduction measures and actions related to energy, transportation, agriculture, water conservation and management, waste management, natural resources, green building, and cap-and-trade actions.

The Central Water District Board of Directors approved a climate change resolution that commits the District to address aspects of climate change, mitigation and adaptation. In terms of mitigation, the Board's climate change resolution commits the District to reducing GHGs to levels defined in California law AB 32. Approximately 71% of the District's total emissions can be attributed to indirect electricity, purchased from PG&E. The District's primary use of electricity is from ground-water pumping (SOURCE V.1b).

Impact Analysis. The project will not result in new structural development, and will not result in new population or growth. The project will not result in new vehicular or stationary emissions. The new well pump will be equipped with the most current energy efficient equipment. Thus, it is likely that the indirect electrical use and greenhouse emissions associated with the pump equipment would be reduced as a result of the proposed project, resulting in a less-than-significant or no impact related to GHG emissions. Thus, further quantification and analysis of greenhouse gas emissions was not deemed necessary.

(b) Conflict with Applicable Plans – No Impact. The project would not conflict with state plans adopted for the purpose of reducing greenhouse gas emissions. The State's Scoping Plan includes strategies for transportation, energy, water and other sectors that are not directly applicable to the proposed project.

In 2013, the Santa Cruz County Board of Supervisors approved a Climate Action Strategy (CAS), which includes a GHG emissions inventory for Santa Cruz County, targets for GHG reduction, and strategies and implementing actions to achieve the targets. Based on a 2005 community emissions inventory, 1990 emissions levels for Santa Cruz County were

estimated, and Santa Cruz County has already met the target for 2020 due to the closing of the Davenport cement plant (SOURCE V.2b). GHG reduction strategies are proposed for the three sectors with the highest emissions: transportation, energy, and solid waste. The report indicates that the emissions targets for 2035 and 2050 can be met, but that a sustained commitment to full implementation of the strategies will be required (Ibid.). The largest reduction will come from state and federal standards for fuel efficiency and vehicle emissions and from the California renewable energy portfolio standard (58 percent), followed by a cleaner energy supply from Community Choice Aggregation (CCA) if that type of regional energy authority is formed (22 percent), energy efficiency (9 percent), transportation and land use planning (5 percent), green business (3 percent), and electric vehicles (3 percent).

The proposed project does not conflict with County measures to reduce GHG emissions as set forth in the County's Strategy, although the Strategy is not directly applicable to the project. Of the specific strategies outlined, the upgraded well pump that is expected to be more energy efficient than the existing facility would be consistent with Strategy E-2 to Increase energy efficiency in new and existing buildings and facilities.

9. Hazards & Hazardous Materials

The project site is not located near an airport or air strip. The project would not result in construction of habitable structures that would be exposed to wildland fire hazards.

(a,c) Use/Create Hazardous Materials – No Impact. The project consists of construction of a new well and pipelines. Well water will be injected with a 12.5 % solution of chlorine to provide disinfection of the water distribution system in accordance with California State Water System Requirements. Chlorine solution tanks will be double contained to provide for spillage in accordance with State Regulations. Approximately 20 gallons per month of 12.5% chlorine solution will be used in the well per month when the well is operating at 25% capacity per month. Chlorine solution will be delivered in 5 gallon containers in accordance with all materials transportation requirements.

The project will not result in new structural development, and will not result in new population or employee growth. Thus, the project will not result in operations that would create risks associated with hazardous material use. Construction would not include development that would store or use hazardous materials. The project is not located within ¼ mile of an existing or proposed school, and would not result in a stationary source of emissions.

10. Hydrology and Water Quality

(a) Waste Discharge Requirements Quality– No Impact. The proposed consists of installation of a new well, pump station and pipeline. The project does not involve new discharges that would violate any water quality standards or waste discharge requirements. According to County Geographic Information System (GIS) data, the site is located within a groundwater recharge area (SOURCE V.2c), and would have no effect on groundwater resources because this new well will replace Well 4 and Well 10.

The only impermeable area will be the concrete well pad and a small 10 foot by 10 foot building containing electrical equipment and chlorine solution and pumping systems for water disinfection. All drilling material mud and pump testing disposal water will be stored on site in tanks and disposed of off-site in appropriate locations.

(b) Groundwater – Less Than Significant Impact. The proposed consists of installation of a new well, pump station and pipeline which will replace existing well 4 and 10. The new well is expected to produce about 450 gpm and replace well 4 and well 10 both of which have the capacity to produce about over 500 gpm. The new well 14 is not expected to out put the total flows from both wells.

No existing wells are located within 500 feet of this new well so it is anticipated that the new well will have no impact on drawdown of any well. Test conducted by Central Water District staff indicated no impacts to neighboring wells from production of existing well 12. District staff have identified three domestic wells that are near the proposed well site and currently existing production has had no effect on drawdown.

(c-d) Alteration of Stream Channel – No Impact. Neither the County GIS nor the USGS maps depict a creek at the site or in close proximity; no drainage features were observed during the site visit. The proposed project would not result in direct alterations to existing streams or result in indirect impacts that would alter the course of a stream.

(e) Stormwater Runoff – Less-than-Significant Impact. The proposed project would result in a minimal increase of surface runoff from the impervious surfaces because of the concrete well pad and 100 square foot building. The potential

increase would be considered minor to the minimal increase in surface area and would not result in a significant increase in runoff that would exceed capacity of existing facilities as drainage in the area is via sheet flow.

(f) Water Quality – No Impact. The proposed installation of a new well, pump station and pipeline would not result in a permanent use that would generate runoff with the potential to carry pollutants into downstream water bodies. The project would not result in new habitable structures or population increases, and no parking lots or vehicle use would occur, except for intermittent Water District staff maintenance.

(g-h) Flood Hazards – No Impact. The project site is not located near a stream or within a designated flood hazard zone.

j) Tsunami Inundation – No Impact. The project site is not located in proximity to the coast or subject to potential tsunami inundation.

11. Landuse and Planning

(a) Divide a Community – No Impact. The project is located within an unincorporated area of Santa Cruz County. The proposed project consists of installation of a new well, pump station and pipeline and would not result in new structural development and or not divide an established community.

(b-c) Consistency with Local Policies/ Plans – No Impact. The proposed project consists of upgrading existing water storage facilities. The project is not affected by nor will it affect existing and planned land uses in the area. There are no known policies, plans or regulations adopted for the purpose of mitigating an environmental impact with which the project would potentially be in conflict.

(c) Conflict with Habitat Conservation Plan – No Impact. The project site is not located within an area covered by an adopted Habitat Conservation Plan or Natural Community Conservation Plan.

12. Mineral Resources

(a - b) Loss of Resources and Loss of Plan – No Impact. The proposed project is located in a rural, forested area. The site is not designated for mineral extraction in the County's General Plan and is not located within, adjacent to or near existing mining operations or known mineral resources.

13. Noise

The project site is not located near an airport or private airstrip.

(a-b) Exposure to Noise and Vibration – No Impact. The project consists installation of a new well, pump station and pipeline. The project will not result in new structural development, and will not result in new population or growth. The project will not result in new structural development, and thus, would not expose residents, workers or visitors to noise levels above compatibility standards.

(d) Temporary Construction Noise – Less-than-Significant Impact. The proposed project would result in short-term construction equipment noise, but would not result in a substantial temporary increase in ambient noise levels. The construction of the proposed replacement well is expected to take six months. Construction noise levels would be temporary and fluctuate over the construction period and on any given day. Construction would occur during normal business hours except for the required 24 hour pump test. Drilling will be limited to 8 hours per day. Given the short-term duration of construction and fluctuation of noise level throughout the construction period, construction would not substantially affect nearby residences, and construction noise is considered a less-than-significant impact. No mitigation measures are required.

14. Population and Housing

(a - b) Divide established community and conflict with plan) – No Impact. The project consists of installation of a new well, pump station and pipeline. The project will not result in new structural development, and will not result in new residential development or population growth. The project will not result in displacement of housing units or residents as none exist on the project site. No impact is determined.

15. Public Services – No Impact

The proposed project consists the construction of a 600 feet deep 12" diameter well casing, well pump station, electrical system and 8 inch diameter pipeline to the existing water distribution system of Central Water District, Aptos, California. This well will be a replacement well for Central Water District Well #4 and #10 which have severe water quality problems and will be retired. The project will not result in new structural development, population or growth or demand for services.

16. Recreation- No Impact

The project will not result in new structural development, population or growth or demand for recreational services.

17. Transportation - No Impact

There are no adopted congestion management programs for the project area, and the project would not conflict with adopted policies, plans or programs that support alternative transportation. The project is not located near an airport. The project consists of installation of a new well, pump station and pipeline. The project will not result in new structural development, and will not result in new population or growth. The project will not result in new structural development or generation of vehicular trips. Periodic trips by District staff for facility maintenance would continue as currently occurs.

18. Tribal Cultural Resources - No Impact

There are no known resources on or adjacent to the site that would be considered a tribal cultural resource. No California Native American tribe that is traditionally and culturally affiliated with this geographic area has contacted the Central Water District and requested consultation. Therefore, the project would not cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074.

RECOMMENDED CONSTRUCTION SPECIFICATION: If archaeological resources or human remains are accidentally discovered during construction, work shall be halted within 50 meters (150 feet) of the find until it can be evaluated by a qualified professional archaeologist. If the find is determined to be significant, appropriate mitigation measures shall be formulated and implemented. Disturbance shall not resume until the significance of the archaeological resources is determined and appropriate mitigations to preserve the resource on the site are established. If human remains are encountered during construction or any other phase of development, work in the area of discovery must be halted, the Santa Cruz County coroner notified, and the provisions of Public Resources Code 5097.98-99, Health and Safety Code 7050.5 carried out. If the remains are determined to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours as required by Public Resources Code 5097.

19. Utilities & Service Systems – No Impact

The project consists of installation of a new well, pump station and pipeline. The project will not result in new water demands as it will replace existing facilities that have inferior water quality. No wastewater will be generated by the new well facility. No solid waste will be generated by the new facility.

20. Wildfire – No Impact

The pump building will be concrete block with a concrete tile roof which is fire resistant. All other work is underground and not exposed to possible wildfires.

21. Mandatory Findings of Significance

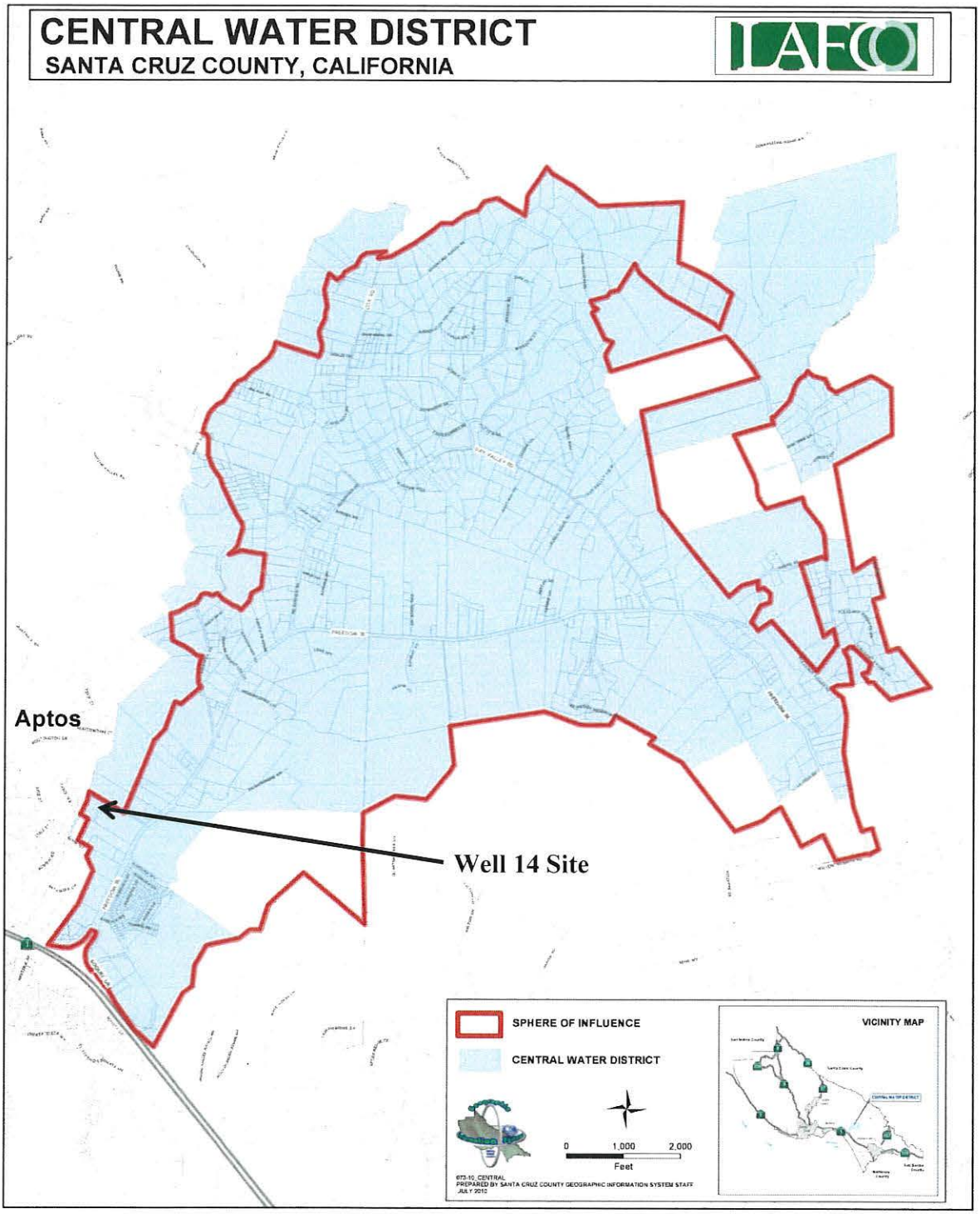
(a) Quality of the Environment – No Impact. The proposed project would result in a significant effect on biological resources (nesting birds) with implementation of the mitigation as discussed in subsection 4 above. The project would not result in impacts related to fish or wildlife or reduce fish or wildlife habitat and species populations. The project would not result in significant impacts to cultural resources ore eliminate important examples of major periods of California history or prehistory as discussed in section 5 above.

(b) Cumulative Impacts – No Impact. There are no known cumulative projects in the area to which the project would contribute cumulative impacts.

(c) Substantial Adverse Effects on Human Beings – No Impact. No environmental effects have been identified that would have direct or indirect substantial adverse effects on human beings.

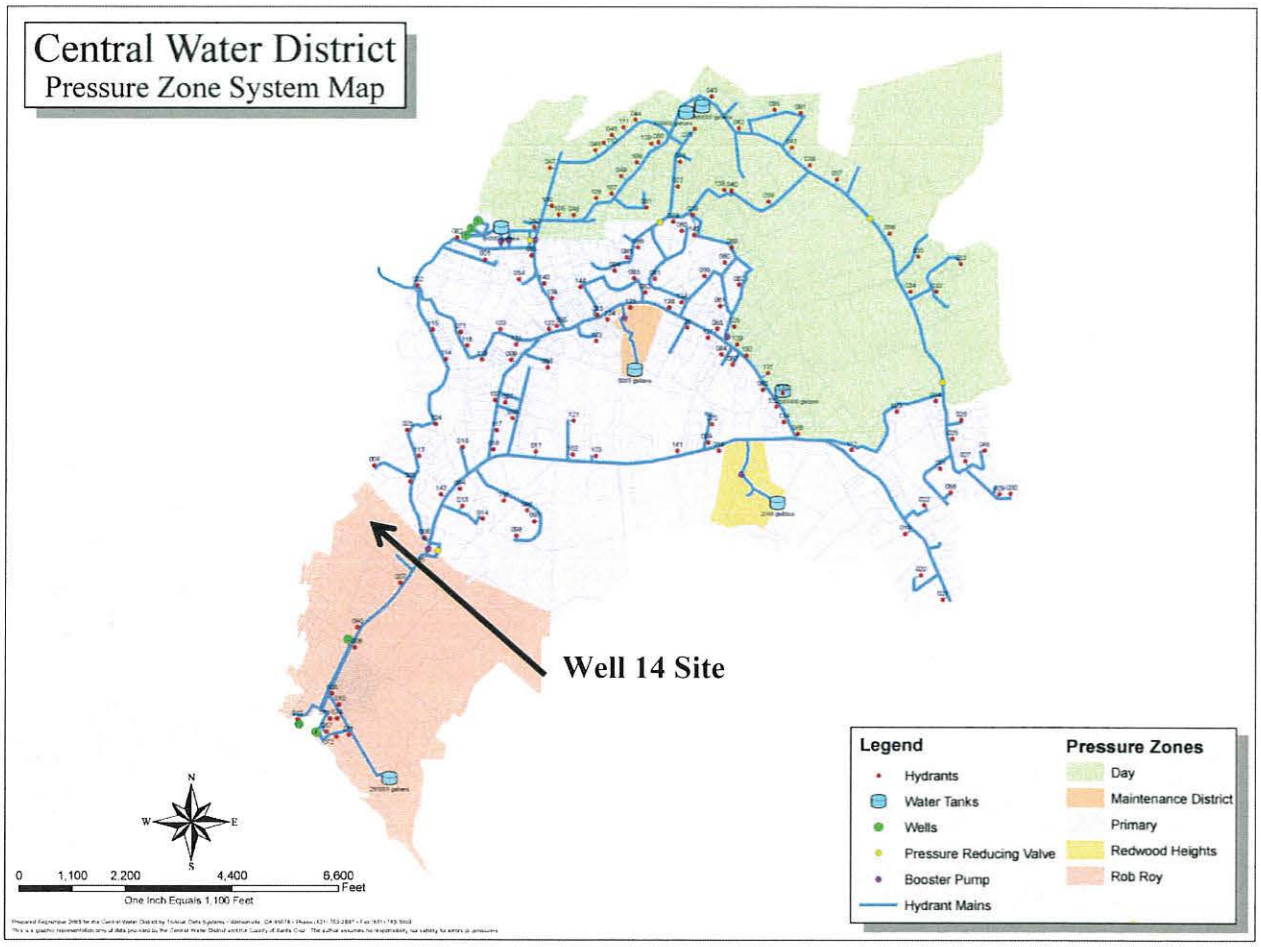
Figures

Figure 1



Central Water District
Aptos, CA

Figure 2
Central Water District Facilities Map

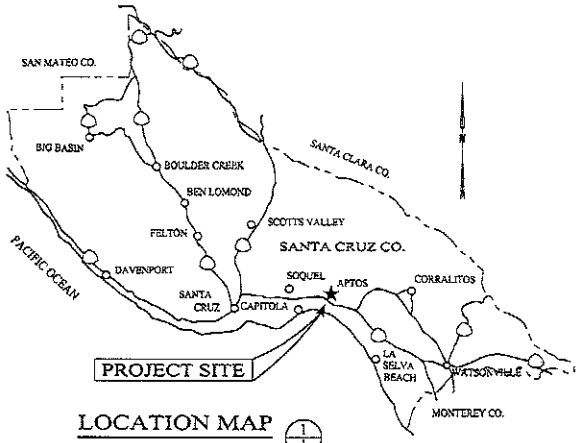


CONSTRUCTION DRAWINGS

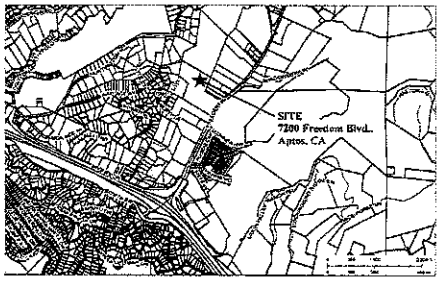
for

Schedule 2
WELL 14 PROJECT
CENTRAL WATER DISTRICT
APTOS, CALIFORMIA

June 2017



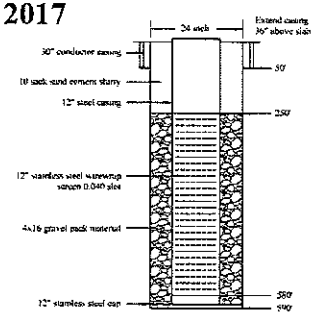
LOCATION MAP (1/1)
Not to Scale



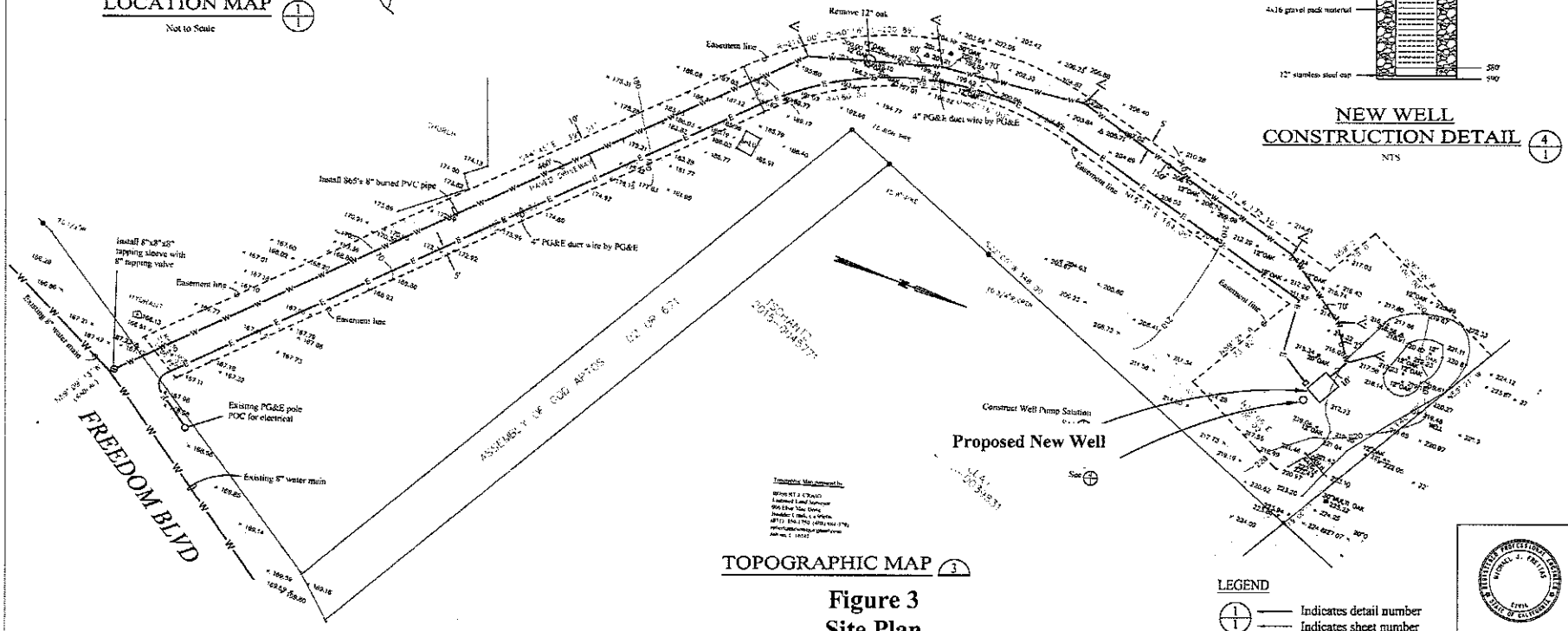
VICINITY MAP (2/1)
Scale as Shown

LIST OF DRAWINGS

Sheet 1 - Topographic Plan
Sheet 2 - Site Details
Sheet 3 - Building Details
Sheet 4 - Electrical Details



NEW WELL CONSTRUCTION DETAIL (4/1)
NTS



TOPOGRAPHIC MAP (3)

Figure 3
Site Plan

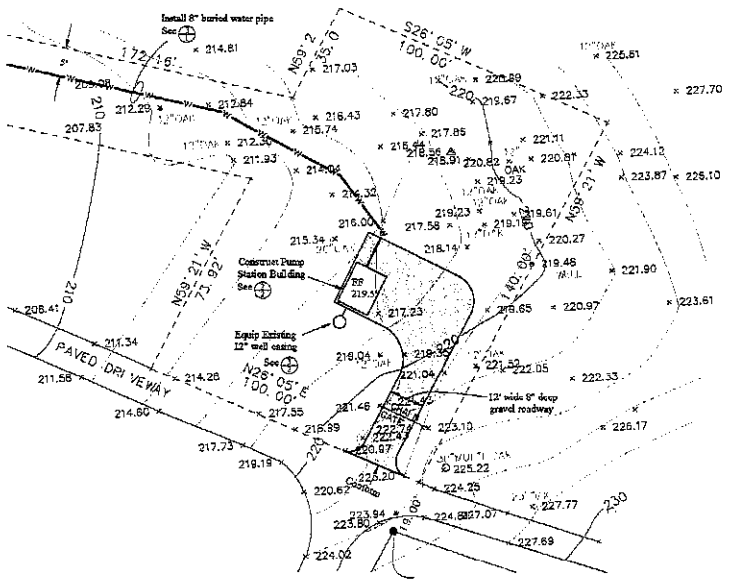
LEGEND
(1/1) —— Indicates detail number
—— Indicates sheet number

REVISIONS	BY

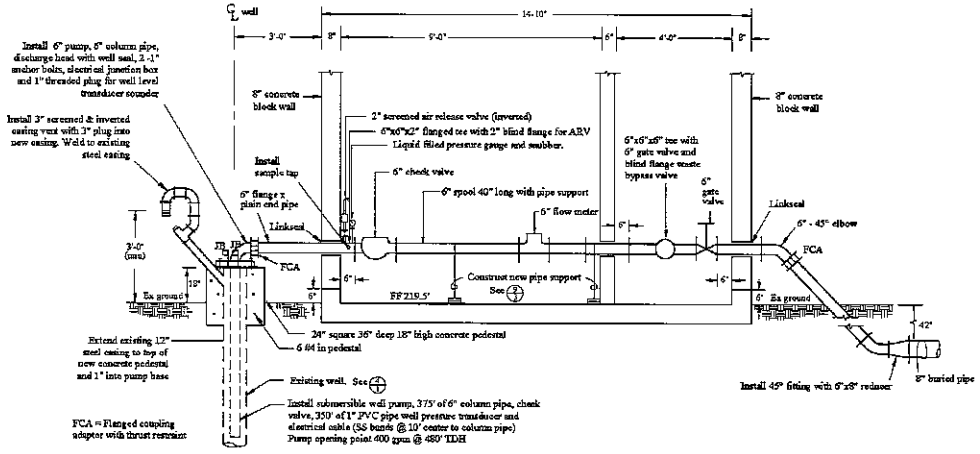
SCHEDULE 2
TOPOGRAPHIC PLAN
WELL 14 PROJECT - CENTRAL WATER DISTRICT
APTOS, CALIFORNIA

FREITAS + FREITAS
Engineering and Planning Consultants, Inc.
9011 Soquel Drive, Suite C
Aptos, CA 95003
Phone (831) 688-1168
Fax (831) 688-1218

Date	9/17
Scale	As Shown
Drawn	Digital Graphics
Job	17002
Sheet	1 of 4 Sheets



WELL 14 SITE PLAN (1/2)
Scale 1" = 20'-0"



PUMP BUILDING SECTION (3/2)
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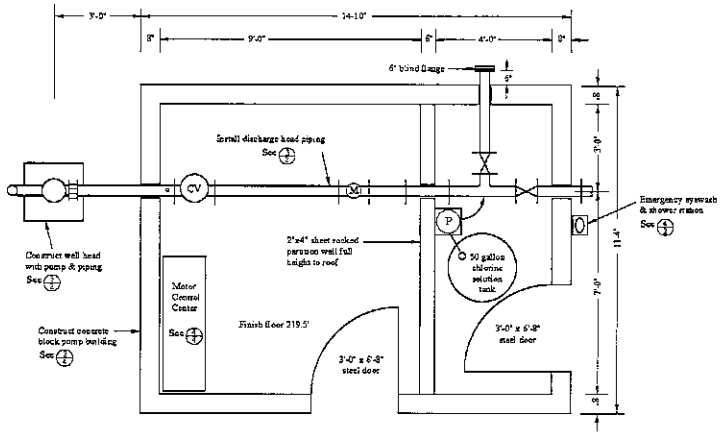

PUMP BUILDING PLAN (2/2)
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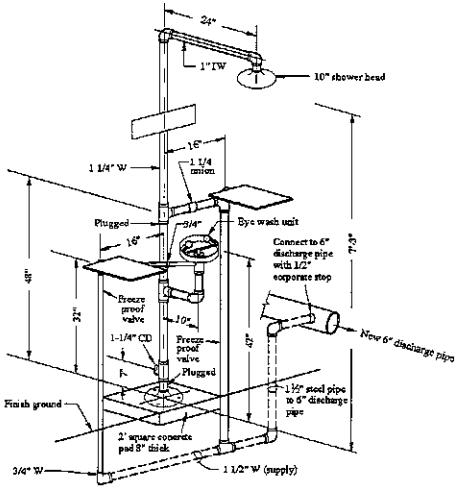
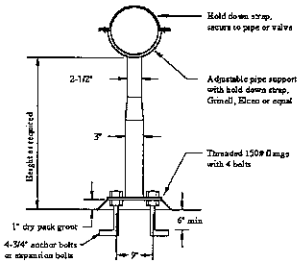


EYEWASH AND SHOWER STATION (4/2)
NTS



PIPE SUPPORT (5/2)
NTS

Figure 4
Details of Site Plan

SCHEDULE 2
SITE DETAILS
WELL 14 PROJECT - CENTRAL WATER DISTRICT
APTOS, CALIFORNIA

FREITAS + FREITAS
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Aptos, CA 95003
Phone (831) 688-1288
Fax (831) 688-1218

Date 9/17
Scale As Shown
Drawn Digital Graphics
Job 17002
Sheet 2 of 4 Sheets

IS/MND Public Review Procedure

Once the IS/MND has been completed, the following procedures should be followed to provide for a 30- day public review period for the document; the 30-day period should not end on a weekend day.

- Prepare Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) - The NOI should contain the information specified in CEQA Guidelines section 15072(g).
- State Clearinghouse Filing – Provide one copy of the Notice of Completion (see web link below for NOC form), 15 hard copies of the NOI and the entire IS/MND document or 15 hard copies of the summary form (see web link below for summary form) and 15 CDs of the entire IS/MND document to the State Clearinghouse. (See http://opr.ca.gov/clearinghouse/ceqa/document- submission.html for additional details.) The Clearinghouse will log in the document, which starts the public review period, and distribute the document to state responsible agencies, if any, trustee agencies (e.g., California Department of Fish and Wildlife), and other involved state agencies.
- County Clerk Filing – Provide the NOI to the Santa Cruz County Clerk (Clerk of the Board of Supervisors) on the first day of the review period. They will post the notice during the review period.
- Other Local Agency Mailings – It is recommended that the NOI and attached IS/MND be sent to the Environmental Coordinator at the Santa Cruz County Planning Department, the Water Resources Division of the Santa Cruz County Environmental Health Department, and neighboring water districts.
- Other Distribution – Mail the NOI to the last known name and address of all organizations and individuals who have previously requested such notice in writing. Notice shall also be provided by at least one of the following procedures:
  - ☐ Publication of the NOI at least one time in a newspaper of general circulation in the area affected by the project. We recommend publication on the day the public review period starts.
  - ☐ Posting of the notice on and off site in the project area.
  - ☐ Direct mailing to the owners and occupants of property contiguous to the project.

Biotic Study

WELL #14
CENTRAL WATER DISTRICT
APN 041-242-21

BIOTIC REPORT

December 12, 2018

Biotic Resources Group
Biotic Assessments • Resource Management • Permitting

WELL #14
CENTRAL WATER DISTRICT
APN 041-242-21

BIOTIC REPORT

Prepared for
Central Water District

Prepared by
Biotic Resources Group
Attn: Kathleen Lyons, Plant Ecologist

With
Dana Bland, Wildlife Biologist
Dana Bland & Associates

December 12, 2018

2551 S. Rodeo Gulch Road #12, Soquel California • (831) 476-4803 • brg@cruzio.com

WELL 14 PROJECT
CENTRAL WATER DISTRICT
APN 041-242-21

BIOTIC REPORT

December 2018

1.0 INTRODUCTION

The Central Water District is proposing the construction of a well, well station, and water pipeline for a property on Freedom Boulevard in the Aptos area of Santa Cruz County. The approximately 0.84-acre project site is located on the west side of Freedom Boulevard, north of the boulevard's intersection with Aptos High School. The project is located on a 13.6-acre parcel that is currently partially developed with a church at 7200 Freedom Boulevard (APN 041-242-21 (Figure 1).

The proposed project consists of the construction of a 600-foot deep 12-inch diameter well casing, a well pump station, and electrical system, and an 8-inch diameter pipeline that would connect to the District's existing water distribution system. The project includes construction of a buried water pipeline extending from the rear parking lot of New Hope Church within a 30-foot wide easement to the well site. The placement of the buried water pipeline will be a temporary disturbance. The ground area to be temporarily disturbed is 13,200 square feet, including the removal of one oak tree. The ground area permanently affected by the well building and access road at the well site is 1,650 square feet. The well site will be accessed via an existing paved road from Freedom Blvd. These features would be located in an easement obtained from the property owner.

The Biotic Resources Group assessed the biotic resources of the project site. The focus of the assessment was to identify sensitive biotic resources within the project site and evaluate the proposed activities relative to such resources.

Specific tasks conducted for this study include:

- Characterize and map the major plant communities within the project site;
- Identify sensitive biotic resources, including plant and wildlife species of concern, within areas proposed for construction activities,
- Evaluate the potential effects of the proposed project on sensitive biotic resources and recommend measures to avoid or reduce such impacts.

Intended Use of this Report

The findings presented in this biological report are intended for the sole use of the Central Water District and their representatives in evaluating the proposed project. The findings presented by the Biotic Resources Group in this report are for information purposes only; they are not intended to represent the interpretation of any State, Federal or County law or ordinance pertaining to permitting actions within sensitive habitat or endangered species. The interpretation of such laws and/or ordinances is the responsibility of the applicable governing body.

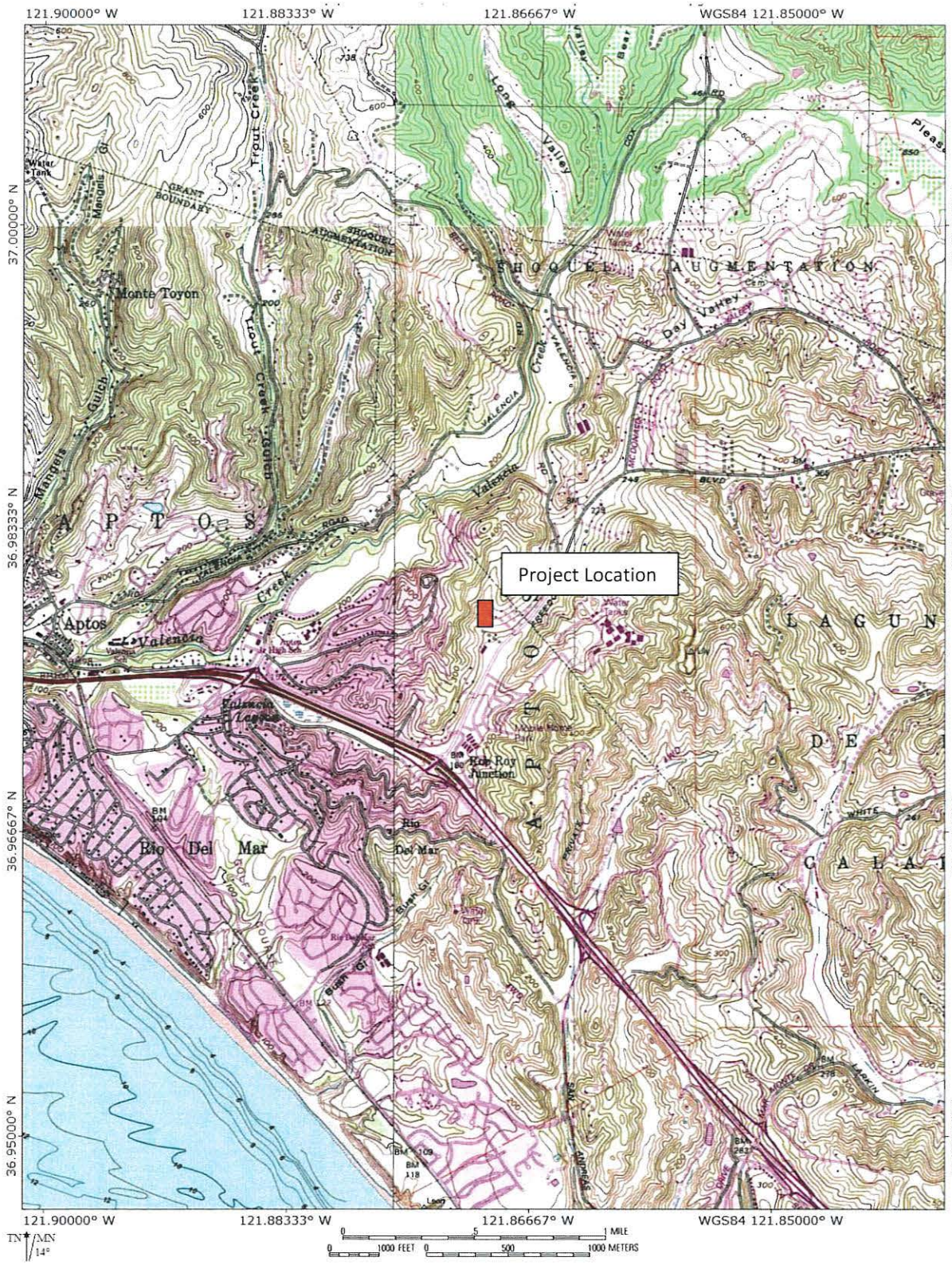

Figure 1. Project Location on USGS Watsonville West Topographic Map

2.0 METHODOLOGY

A survey to document site conditions and biotic resources at the project site was conducted in October and November 2018 by Kathleen Lyons (plant ecologist) and Dana Bland (wildlife biologist, Dana Bland & Associates). Study methodology included a field reconnaissance survey, aerial photograph interpretation, and accessing electronic databases. Database searches were conducted; the California Natural Diversity Data Base (CNDDB) "RareFind" (2018) and the California Native Plant Society (CNPS) Rare Plant Electronic Inventory (2018) for the Watsonville West and surrounding quadrangles were accessed.

Prior to conducting the field surveys, a potential list of special status or sensitive species was reviewed, utilizing species recognized by California Department of Fish and Wildlife (CDFW), US Fish and Wildlife Service (USFWS), and California Native Plant Society (CNPS). The proposed well site development area was walked. The major plant community types on the property, based on the classification system developed by CNDDB's *California Terrestrial Natural Communities (*CDFW 2010) and *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995) and as amended to reflect site conditions, were mapped during the field survey. Plant community types as recognized by CDFW were used to the greatest extent feasible, however, modifications to the classification system's nomenclature were made, as necessary, to accurately describe the sites resources, particularly for areas that the CDFW system provides no suitable classification. The plant communities were mapped onto an aerial photo (Figure 2). The *Jepson Manual* (2012) was the principal taxonomic reference used for the botanical work.

3.0 ENVIRONMENTAL SETTING

The Well 14 project site lies at the mid-portion of the geographic area known as the Central Coast Range and extends eastward to the San Francisco Bay Area Range. The project site supports two plant community types: oak woodland and annual grassland/ruderal. Each vegetation type, its California vegetation code, and state ranking (rarity) are listed in Table 1.

The location of these communities is depicted on Figure 2. The soils at the project site are mapped as Baywood loamy sand, 2-15 percent slopes (105) and Baywood loamy sand, 15 to 30 percent slopes (106) (NRCS, 2018).

Table 1. Vegetation Types, Well 14 Project

CaCode[1]	Vegetation Type	Plant Association	State Ranking[2]
42.026.22	Non-native Grassland/Ruderal	Wild Oat/ Ryegrass– Filaree/ Cat's ear/Ice Plant/Bur Clover/ Italian Thistle	None
71.060.02	Oak Woodland	Coast Live Oak/Shreve Oak– California Blackberry/Ripgut Brome/Miner's Lettuce	S2[2]

[1] – California vegetation code as per CDFG (September, 2010); 2- Vegetation types are ranked between S1 and S5. For vegetation types with ranks of S1-S3, all associations within the type are considered to be highly imperiled. [3] Shreve oak woodland is a provisional alliance and is ranked S2.

Figure 2. Existing Vegetation Types on Aerial Photo

3.1 Non-native Grassland/Ruderal

A grassy area occurs at the rear of the church parking lot and at/around the proposed well site. This vegetation type was observed to support a mosaic of native and non-native plant species, such as wild oat (*Avena fatua)*, perennial ryegrass (*Lolium perennis)*, rattlesnake grass (*Briza maxima)*, Mediterranean clover (*Trifolium angustifolium),* telegraph weed (*Heterotheca grandiflora)*, cat's ear (*Hypochaeris radicata)*, and filaree (*Erodium botrys)*. The slope near the church parking lot also supports ice plant (*Carpobrotus edulis)*, Italian thistle (*Carduus pycnocephalus)*, coast madia (*Madia sativa)*, and California poppy (*Eschscholzia californica)*. The character of the grassland at the well site is depicted in Figure 3.

Wildlife Resources. The non-native grassland habitat provides little value to native wildlife, due to its fragmented nature at this site, mowing, and the predominance of non-native vegetation. The weedy, grassy areas do provide some forage for wildlife that can tolerate the high human presence in and around the site such as California towhee (*Pipilo crissalis*), American goldfinch (*Carduelis tristis*), California meadow vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*).

Figure 3. Annual Grassland at Well Site

3.2 Oak Woodland

The project site supports oak woodland which is characterized by the presence of two oak species: coast live oak (*Quercus agrifolia)* and Shreve oak (*Quercus parvula* var. *shrevei)*. Coast live oaks are common to the Santa Cruz region; however, Shreve oaks are uncommon. They can form densely wooded area, or, as in the case at this site, intermix with coast live oaks. In addition to the oak trees, the woodland supports scattered Monterey pine (*Pinus radiata)* with an understory of California blackberry (*Rubus ursinus)*, poison oak (*Toxicodendron diversilobum)*, coffee berry (*Frangula californica)*, yerba buena (*Clinopodium douglasii)*, Italian thistle, fiddle dock (*Rumex acetosella)*, filaree, wild oat, rattlesnake grass, and scattered jubata grass (*Cortederia jubata)*. The woodland is depicted in Figure 4.

Wildlife Resources. The oak woodlands on the property provide high value for wildlife. Most of this oak woodland provides dense canopy and diversity of understory plants. Acorns from oaks provide an important food resources for many wildlife species, and natural cavities in the oaks provide nesting opportunities for some birds and mammals. Snags are an important component of oak woodlands to some wildlife such as woodpeckers, which excavate nests in snags and holes for storing acorns. Downed decaying logs and limbs add to the structural complexity of the habitat, and are important cover, nesting, roosting, and foraging substrate for species such as newts which are attracted to the moist microclimate and invertebrate food supply. The denser oak woodlands also provide escape cover during the day for species such as deer.

Common wildlife species expected to occur in oak woodlands on the property include California slender salamander, western fence lizard, scrub jay, California quail, red-tailed hawk, bats, western gray squirrel.

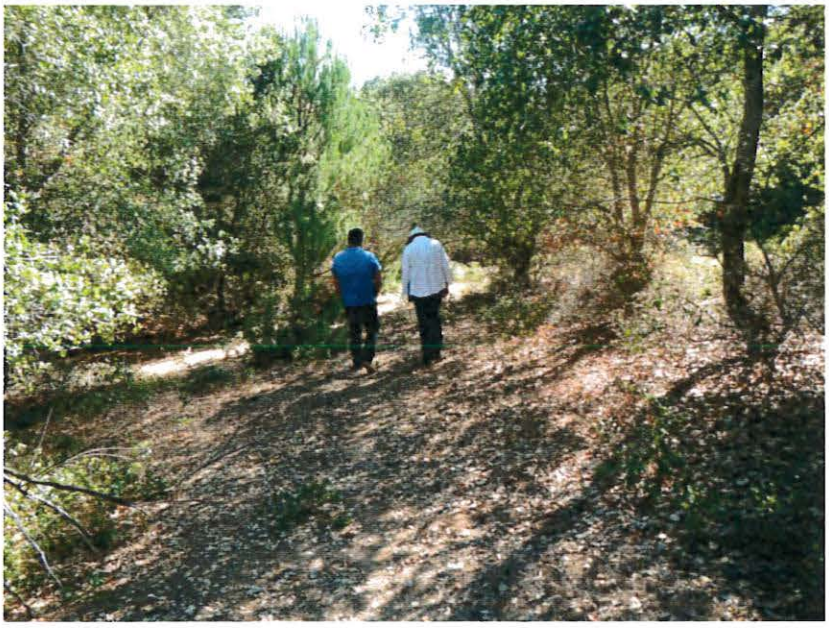

Figure 4. Oak Woodland Along Pipeline Alignment

4.0 REGULATED AND SENSITIVE HABITATS

4.1 Regulated Habitats

California Department of Fish and Wildlife (CDFW) is a trustee agency that has jurisdiction under Section 1600 et seq. of the CDFG Code. Under Sections 1600-1603 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream or lake which supports fish or wildlife. Along watercourses, CDFW's jurisdictional limit typically extends to the top of bank or to the edge of riparian habitat if such habitat extends beyond top of bank (outer drip line), whichever is greater. There are no creeks or watercourses under CDFW jurisdiction within the project site.

Water quality in California is governed by the Porter-Cologne Water Quality Control Act and certification authority under Section 401 of the Clean Water Act, as administered by the Regional Water Quality Control Board (RWQCB). The Section 401 water quality certification program allows the State to ensure that activities requiring a Federal permit or license comply with State water quality standards.

Water quality certification must be based on a finding that the proposed discharge will comply with water quality standards which are in the regional board's basin plans. The Porter-Cologne Act requires any person discharging waste or proposing to discharge waste in any region that could affect the quality of the waters of the state to file a report of waste discharge. The RWQCB issues a permit or waiver that includes implementing water quality control plans that consider the beneficial uses to be protected. Waters of the State subject to RWQCB regulation extend to the top of bank, as well as isolated water/wetland features and saline waters. Should there be no Section 404 nexus (i.e., isolated feature not subject to USACE jurisdiction); a report of waste discharge (ROWD) should be filed with the RWQCB. The RWQCB interprets waste to include fill placed into water bodies. There are no creeks or watercourses under RWQCB jurisdiction within the project site.

The US Army Corps of Engineers (USACE) regulates activities within waters of the United States pursuant to congressional acts: Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (1977, as amended). Section 10 of the Rivers and Harbors Act requires a permit for any work in, over, or under navigable waters of the United States. Navigable waters are defined as those waters subject to the ebb and flow of the tide to the Mean High Water mark (tidal areas) or below the Ordinary High Water mark (freshwater areas). There are no features under USACE jurisdiction within the project site.

4.2 Sensitive Habitats

Sensitive habitats are defined by local, State, or Federal agencies as those habitats that support special status species, provide important habitat values for wildlife, represent areas of unusual or regionally restricted habitat types, and/or provide high biological diversity.

CDFW classifies and ranks the State's natural communities to assist in the determining the level of rarity and imperilment. Vegetation types are ranked between S1 and S5. For vegetation types with ranks of S1-S3, all associations within the type are considered to be highly imperiled. If a vegetation alliance is ranked as S4 or S5, these alliances are generally considered common enough to not be of concern; however, it does not mean that certain associations contained within them are not rare (CDFG, 2007 and 2010). The oak woodland, where supporting Shreve oaks, is ranked as sensitive (i.e., S2) by CDFW.

5.0 SPECIAL STATUS SPECIES

5.1 Special Status Plants

The biotic review focused on special status plant species that are officially listed by the State and/or Federal government and CNPS List 1B. No special status plant species have been recorded for the project site as per the CNDDB; however, occurrences are documented in close proximity to the site. The species evaluated for potential occurrence on the property, as per CNDDB records, are listed on Table 2.

Of the special status plant species evaluated for their potential to occur on the property (see Table 2), one species is known from the immediate project vicinity. The robust spineflower (*Chorizanthe robusta* var. *robusta)* is known to occur on several properties along Freedom Boulevard. A similar species, the Monterey spineflower (*Chorizanthe pungens* var. *pungens)*, is also known from the greater Aptos area. Both of these species are listed as endangered under the Federal Endangered Species Act. They both occupy open areas with loose, sandy soil in oak woodlands, maritime chaparral, and grassland. The sandy soil within the project site provides potential habitat for both of these species. Both species bloom and are identifiable in the months of May and June; therefore, presence/absence of these species could not be determined during the October and November 2018 site survey.

Other special status species recorded from the greater project vicinity include Santa Cruz tarplant

(*Holocarpha macradenia)* (Larkin Valley area), woodland woolythreads (*Monolopia gracilens)* (Corralitos area), Pajaro manzanita (*Arctostaphylos pajaroensis)* (Pleasant Valley area), Hooker's manzanita (*Arctostaphylos hookeri)* (Mar Monte area), Dudley's lousewort (*Pedicularis dudleyi)* (historic occurrence from Aptos area), and Congdon's tarplant (*Centromadia parryi* ssp. *congdonii)* (Harkins Slough). Although the biotic review was conducted outside the blooming period of these species, the potential presence of these species is considered low due to the lack of suitable microhabitats. No manzanitas were observed in the project site.

Table 2. List of Special Status Plant Species with Potential to Occur at Well 14 Project Site, December 2018

Scientific Name	Common Name	Lifeform	Rare Plant Rank	CESA	FESA	Potential to Occur on Subject Property
Amsinckia lunaris	bent-flowered fiddleneck	annual herb	1B.2	None	None	Low, not expected due to lack of suitable microhabitat
Arctostaphylos andersonii	Anderson's manzanita	perennial evergreen shrub	1B.2	None	None	Low, not observed
Arctostaphylos hookeri ssp. hookeri	Hooker's manzanita	perennial evergreen shrub	1B.2	None	None	Low, not observed
Arctostaphylos pajaroensis	Pajaro manzanita	perennial evergreen shrub	1B.1	None	None	Low, not observed
Arctostaphylos regismontana	Kings Mtn. manzanita	perennial evergreen shrub	1B.2	None	None	Low, not observed
Arctostaphylos silvicola	Bonny Doon manzanita	perennial evergreen shrub	1B.2	None	None	Low, not observed
Calyptridium parryi var. hesseae	Santa Cruz Mountains pussypaws	annual herb	1B.1	None	None	Low, not expected due to lack of Zayante sands
Carex saliniformis	deceiving sedge	perennial rhizomatous herb	1B.2	None	None	Low, not expected due to lack of suitable microhabitat
Ceanothus ferrisiae	Coyote ceanothus	Perennial evergreen shrub	1B.1	None	FE	Low, not expected due to lack of serpentinite
Centromadia parryi ssp. congdonii	Congdon's tarplant	Annual herb	1B.2	None	None	Low, not expected due to lack of suitable microhabitat
Chorizanthe pungens var. hartwegiana	Ben Lomond spineflower	annual herb	1B.1	None	FE	Low, not expected due to lack of Zayante sands
Chorizanthe pungens var. pungens	Monterey spineflower	annual herb	1B.1	None	FE	High, known from nearby area; suitable habitat present
Chorizanthe robusta var. hartwegii	Scotts Valley spineflower	annual herb	1B.1	None	FE	Low, not expected due to lack of suitable microhabitat
Chorizanthe robusta var. robusta	robust spineflower	annual herb	1B.1	None	FE	High, known from nearby area; suitable habitat present
Cirsium fontinale var. campylon	Mt. Hamilton thistle	perennial herb	1B.2	None	None	Low, not expected due to lack of serpentinite
Cordylanthus rigidus ssp. littoralis	Seaside bird's beak	Herb, semiparasitic	1B.1	CE	None	Low, marginally suitable habitat present, but not observed
Dudleya abramsii ssp. setchellii	Santa Clara Valley dudleya	Perennial herb	1B.1	None	FE	Low, not expected due to lack of serpentinite

Table 2. List of Special Status Plant Species with Potential to Occur at Well 14 Project Site, December 2018

Scientific Name	Common Name	Lifeform	Rare Plant Rank	CESA	FESA	Potential to Occur on Subject Property
Ericameria fasciculata	Eastwood's goldenbush	perennial shrub	1B.1	None	None	Low, marginal habitat, but not observed
Eriogonum nudum var. decurrens	Ben Lomond buckwheat	perennial herb	1B.1	None	None	Low, not expected due to lack of Zayante sands
Eryngium aristulatum var. hooveri	Hoover's button celery	perennial herb	1B.1	None	None	Low, not expected due to lack of suitable microhabitat
Erysimum ammophilum	Sand-loving wallflower	perennial herb	1B.2	None	None	Low, marginal sandy habitat
Erysimum teretifolium	Santa Cruz wallflower	perennial herb	1B.1	CE	FE	Low, no suitable habitat, lack of Zayante sands
Fissidens pauperculus	minute pocket moss	moss	1B.2	None	None	Low, no suitable habitat
Fritillaria liliacea	fragrant fritillary	perennial herb	1B.2	None	None	Low, not expected due to lack of suitable microhabitat and lack of serpentinite
Gilia tenuiflora ssp. arenaria	Monterey gilia	annual herb	1B.2	CT	FE	Low, not expected due to lack of suitable microhabitat; lack of coastal dunes
Hoita strobilina	Loma Prieta hoita	perennial herb	1B.1	None	None	Low, not expected due to lack of suitable microhabitat
Holocarpha macradenia	Santa Cruz tarplant	annual herb	1B.1	CE	FT	Low, not expected due to lack of suitable microhabitat
Horkelia cuneata ssp. sericea	Kellogg's horkelia	perennial herb	1B.1	None	None	Low, not expected due to lack of suitable microhabitat
Lasthenia californica ssp. macrantha	Perennial goldfields	perennial herb	1B.2	None	None	Low, not expected due to lack of suitable microhabitat
Lessingia micradenia var. glabrata	smooth lessingia	annual herb	1B.2	None	None	Low, not expected due to lack of suitable microhabitat
Malacothamnus arcuatus	arcuate bush-mallow	perennial evergreen shrub	1B.2	None	None	Low, not expected due to lack of suitable microhabitat; not observed
Malacothamnus hallii	Hall's bush-mallow	perennial evergreen shrub	1B.2	None	None	Low, not expected due to lack of suitable microhabitat; not observed

Table 2. List of Special Status Plant Species with Potential to Occur at Well 14 Project Site, December 2018

Scientific Name	Common Name	Lifeform	Rare Plant Rank	CESA	FESA	Potential to Occur on Subject Property
Monolopia gracilens	woodland woolythreads	annual herb	1B.2	None	None	Low, not expected due to lack of suitable microhabitat; no serpentine
Pedicularis dudleyi	Dudley's lousewort	perennial herb	1B.2	CR	None	Low, not expected due to lack of suitable microhabitat; not observed
Penstemon rattanii var. kleei	Santa Cruz Mountains beardtongue	perennial herb	1B.2	None	None	Low, not expected due to lack of suitable microhabitat; not observed
Pentachaeta bellidiflora	white-rayed pentachaeta	annual herb	1B.1	CE	FE	Low, not expected due to lack of suitable microhabitat
Piperia yadonii	Yadon's rein orchid	perennial herb	1B.2	None	None	Low, not expected due to lack of suitable microhabitat
Plagiobothrys chorisianus var. chorisianus	Choris' popcorn-flower	annual herb	1B.2	None	None	Low, not expected due to lack of suitable microhabitat
Plagiobothrys diffusus	San Francisco popcorn-flower	annual herb	1B.1	CE	None	Low, not expected due to lack of suitable microhabitat
Polygonum hickmanii	Scotts Valley polygonum	annual herb	1B.1	CE	FE	Low, not expected due to lack of suitable microhabitat
Rosa pinetorum	pine rose	perennial shrub	1B.2	None	None	Low, not expected due to lack of suitable microhabitat; not observed
Streptanthus albidus ssp. peramoenus	Most beautiful jewelflower	annual herb	1B.2	None	None	Low, not expected due to lack of suitable microhabitat; no serpentine
Trifolium buckwestiorum	Santa Cruz clover	annual herb	1B.1	None	None	Low, no suitable habitat
Trifolium hydrophilum	Saline clover	annual herb	1B.2	None	None	Low, not expected due to lack of suitable microhabitat; no alkali wetlands

CNPS Status: List 1B: These plants (predominately endemic) are rare through their range and are currently vulnerable or have a high potential for vulnerability due to limited or threatened habitat, few individuals per population, or a limited number of populations. List 1B plants meet the definitions of Section 1901, Chapter 10 of the CDFG Code.

5.2 Special Status Wildlife

Special status wildlife species include those listed, proposed or candidate species by either the Federal or the State resource agencies, as well as those identified as State species of special concern. In addition, all raptor nests are protected by Fish and Game Code, and all migratory bird nests are protected by the Federal Migratory Bird Treaty Act. Special status wildlife species were evaluated for their potential presence in the project area as described in Table 3 below.

The oak woodland on the project site provides potential upland habitat for the Santa Cruz long-toed salamander, which migrates from upland habitat to breeding ponds during rainy winter nights. The closest known breeding pond (Palmer Pond) to the project site is approximately 0.25 mile to the ESE and there are no significant barriers to salamander movement. No protocol presence/absence surveys have been conducted on the project site for this salamander, and there is no breeding pond on the property.

One other special status species, the woodrat, was not observed along the water pipeline route during the reconnaissance survey but suitable habitat is present in the oak woodland. The property does not have suitable habitat for the other special status species known from the greater vicinity, as identified in Table 3; however, native birds may nest in the trees.

Table 3. List of Special Status Wildlife Species with Potential to Occur at Well 14 Project Site, Aptos, CA December 2018,Watsonville West Quad.

SPECIES	STATUS[1]	HABITAT	POTENTIAL OCCURRENCE ON SITE
Invertebrates			
Monarch butterfly *Danaus plexippus*	*	Eucalyptus, acacia and pine trees groves provide winter habitat when they have adequate protection from wind and nearby source of water	No suitable habitat on site.
Fish			
Steelhead *Oncorhynchus mykiss*	FT	Perennial creeks and rivers with gravels for spawning.	No suitable habitat on site.
Tidewater goby *Eucyclogobius newberryi*	FE, CSC	Coastal lagoons and associated creeks up to 1 mile inland	No suitable habitat on site.
Amphibians			
California tiger salamander *Ambystoma californiense*	FT, CSC	Ponds, vernal pools for breeding, grasslands with burrows for upland habitat	No suitable habitat on site.
Santa Cruz long-toed salamander *Ambystoma macrodactylum croceum*	FE, SE	Ponds for breeding with water at least into June. Riparian, oak woodland, coastal scrub for upland habitat.	Potential upland habitat present in project area.
Santa Cruz black salamander *Aenides flavipunctatus niger*	CSC	Mesic forests of fog belt; terrestrial, lives under logs, rocks, etc.	No suitable habitat on site.
California giant salamander *Dicamptodon ensatus*	CSC	Wet coastal forests near streams and seeps; breed in streams	No suitable habitat on site.
Foothill yellow-legged frog *Rana boylii*	CSC	Perennial creeks with cobble substrate for egg attachment.	No suitable habitat on site.

SPECIES	STATUS[1]	HABITAT	POTENTIAL OCCURRENCE ON SITE
California red-legged frog *Rana draytonii*	FT, CSC	Riparian, marshes, estuaries and ponds with still water at least into June.	No suitable habitat on site.
Reptiles			
Western pond turtle *Emys marmorata*	CSC	Creeks and ponds with water of sufficient depth for escape cover, and structure for basking; grasslands or bare areas for nesting.	No suitable habitat on site.
Black legless lizard *Anniella pulchra nigra*	CSC	Sand dunes with native vegetation	No suitable habitat on site.
Birds			
White tailed kite *Elanus leucurus*	FP	Nests in riparian and other mixed deciduous forests with adjacent open areas for foraging	No suitable habitat on site.
Western snowy plover *Charadrius alexandrinum nivosus*	FT, CSC	Nests on sandy beach, shores of salt ponds	No suitable habitat on site.
Burrowing owl *Athene cunicularia*	CSC	Nests and winters in grasslands with burrows and short vegetation	No suitable habitat on site.
Bank swallow *Riparia riparia*	ST	Vertical banks of rivers, lakes, ocean shorelines with sandy soils for digging nests	No suitable habitat on site.
Olive-sided flycatcher *Contopus cooperi*	CSC	Coniferous and oak forests with tall trees or snags for nesting	No suitable habitat on site.
Yellow warbler *Dendroica petechia brewsteri*	CSC	Riparian woodlands with dense understory plants	No suitable habitat on site.
Tricolored blackbird *Agelaius tricolor*	CSC	Dense bulrush and/or cattail vegetation adjacent to freshwater marshes	No suitable habitat on site.
Mammals			
Santa Cruz kangaroo rat *Dipodomys venustus venustus*	*	Silverleaf manzanita and mixed scrub in Zayante soils	No suitable habitat on site.
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	CSC	All types of forests and dense scrub habitats	Potential habitat in oak woodland.
American badger *Taxidea taxus*	CSC	Grasslands with friable soils for digging dens	No suitable habitat on site.

[1] Key to status:

FE = Federally listed as endangered species
FT = Federally listed as threatened species
SE = State listed as endangered species
ST = State listed as threatened species
CSC = California species of special concern
* = Species of local concern as per County Code

6.0 PROJECT REVIEW AND RECOMMENDATIONS

6.1 Thresholds of Significance

The thresholds of significance presented in the CEQA Guidelines were used to evaluate project impacts and to determine if implementation of the proposed project would pose significant impacts to biological resources. For this analysis, significant impacts are those that substantially affect, either directly or through habitat modifications:

a) A species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS or NMFS;
b) Riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
c) Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
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;
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
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.

6.2 Environmental Impacts, Mitigation Measures and Significance Determination for The Proposed Project

The proposed project (plans by Freitas + Frietas, dated 9/17) was evaluated for potential direct and indirect impacts to biotic resources, as per the CEQA criteria presented above. Impacts to sensitive habitats/resources and/or special status species were considered potentially significant. A discussion of project features and determination of potential impacts, as per CEQA criteria (a) through (f) are presented below.

a) **Special Status Plant Species.** The robust spineflower and Monterey spineflower are known to occur in close proximity to the proposed project and the project site supports suitable habitat. Presence or absence could not be determined during the October/November 2018 field visits, as this was outside the blooming period for these annual plant species.

Recommended Measure BIO-1: Prior to construction, a plant survey shall be conducted during April, May and June to determine presence/absence of robust or Monterey spineflower. If the species are not found to be present, no additional measures are required. If either species is found within the project area, the District will identify an alternative well site/water line/roadway work area that avoids impacting the species. If impacts to the species cannot be avoided, the District will confer with USFWS and CDFW on a habitat mitigation plan. A mitigation plan shall be prepared that outlines measures to collect seed and re-establish spineflower colonies in a nearby protected area. The plan shall be reviewed and approved by CDFW and USFWS prior to any site construction. Implementation of the plan shall be subject to monitoring and reporting for a minimum of 5 years, with remedial actions identified if species re-establishment is not successful within 5 years.

Special Status Wildlife Species. The proposed water pipeline through the oak woodland provides potential upland habitat for the Santa Cruz long-toed salamander, but no potential breeding habitat. The temporary disturbance to this habitat has the potential to impact individuals of this species, if any are present at the time of construction. The area of temporary disturbance is approximately 13,200 square feet (0.30 acre).

Recommended Measure BIO-2: Conduct the vegetation removal in the oak woodland for the pipeline trench during the non-rainy time of year, usually mid-April to mid-October. Implement measures BIO-4 and BIO-5 for revegetation of the oak woodland habitat.

San Francisco dusky footed woodrat is a California Special of Special Concern. No woodrat houses were observed in the proposed project work area; however, the work may not commence for a couple of years and woodrats may colonize the area prior to construction.

Recommended Measure BIO-3: Have a qualified biologist conduct a survey of the disturbance area within the oak woodland prior to commencement of work. If any occupied woodrat nests are observed within 10 feet of the construction, they should be avoided or, if avoidance is not feasible. The nest shall be disassembled by hand by a biologist, upon prior written approval from CDFW.

b) **Oak Woodland.** The oak woodland is a sensitive habitat as per CDFW. The woodland supports coast live oaks and Shreve oaks. The proposed project will remove one 12"-diameter coast live oak. The following measures are identified to avoid or reduce potential indirect impacts to the oak woodland from the project.

Recommended Measure BIO-4: The project shall implement standard erosion control BMP's and oak woodland habitat protection measures prior to, during, and after the construction period to minimize impacts to oak trees and the oak woodland, including:

1) Install plastic mesh fencing at the limit of work area to prevent inadvertent impacts to the adjacent woodland vegetation and injury to adjacent native trees. Protective fencing shall be in place prior to ground disturbances and removed once all construction is complete. During construction, no grading, construction or other work shall occur outside the designated limits of work.
2) Minimize removal of oak trees and limbing of oak tree limbs through the careful design of the water line trench route and well site features.
3) No excess soil, chemicals, debris, equipment or other materials shall be dumped or stored outside the designated limits of work.
4) An arborist shall be on site during tree trimming, trenching and grading. As per an arborist's directions, hand tools shall be used to trim oak tree roots encountered during excavation (vs. ripping roots with excavator/backhoe). Where a ditching machine is to run close to trees, the wall of the trench adjacent to the tree shall be hand trimmed, making clean cuts through roots 1 inch and larger in diameter. Where feasible, roots 2 inches and larger diameter shall be tunneled under and shall be heavily wrapped with peat and burlap to prevent scarring and drying. Measures shall be implemented to minimize spread of *Phytopthora* during tree and root trimming. All other measures as identified by the on-site arborist shall be implemented.
5) All staging of equipment and materials, and refueling of equipment, shall be located in existing roadways and parking areas. The contractor shall prepare and implement a fuel spill prevention and clean-up plan.

6) Implement erosion control on disturbed areas. Utilize an erosion control seed mix that contains locally native plant species on the approximately 13,200 square feet of temporarily disturbed area. Suitable grass species include California brome (*Bromus carinatus)*, purple needlegrass (*Stipa pulchra)*, and blue wild rye (*Elymus glaucus)*. Sterile barley (*Hordeum vulgare)* or sterile wheat (*Triticum x Elymus)* can be added to the native species to provide short-term erosion control.

Recommended Measure BIO-5: Implement compensatory mitigation for impacts to the oak woodland to achieve the following:

1) Provide a minimum oak tree replacement ratio of 2:1 (i.e., if one oak is removed, replant two oak trees). Provide supplemental irrigation for planted trees in Years 1-3, or longer if there is an unseasonable drought or other unforeseen circumstances occur that requires a longer irrigation period.
2) Utilize plant propagules collected from the greater Aptos Creek watershed and/or Santa Cruz County in the revegetation efforts. Obtain plants from native plant nurseries that employ Best Management Practices (BMP's) that control or eliminate the diseases caused by *Phytopthora ramorum*, as outlined by the California Oak Mortality Task Force.
3) Maintain 100% survival of installed container stock in Years 1-5. Install replacement plants if needed to meet survival rates. If substantial replanting is necessary, the maintenance and monitoring period may need to be extended so that each plant is maintained and monitored for 5 years.
4) Control cover of target invasive weeds (e.g., thistles and others) to less than 5% each year.
5) Maintain and monitor the site annually for 5 years, or longer until success criteria have been met. Submit annual reports to CDFW by December 31 of each monitoring year.

Recommended Measure BIO-6: Trees to be retained that are located adjacent to construction shall be protected during construction, as directed by an arborist (se BIO-4). If inadvertent damage to trees occurs, a remediation program should be developed by the arborist and implemented; the measures shall be inspected by the arborist to determine the success of the remedial measures.

c) **Federally Protected Wetlands.** No federally protected wetlands occur in the project site. No impacts are expected.

d) **Migratory Birds.** Nesting birds may occur in the oak tree to be removed as well as in the woodland adjacent to the project site. Removal of trees and other vegetation to accommodate the project has the potential to kill or injure nesting birds, if any are present in the construction area. Noise from construction has the potential to cause abandonment by adult birds of chicks or eggs in areas of close proximity to construction. Because most nesting birds are protected by the Migratory Bird Treaty Act, measures are listed in BIO-7 to avoid potentially significant impacts if any are present during construction.

Recommended Measure BIO-7: To avoid impacting nesting birds, if present, schedule construction to occur between August 1 and March 1 of any given year, which is outside the bird nesting season. If this is not practical, a qualified biologist will conduct preconstruction bird nesting survey no more than 14 days prior to construction. If the biologist determines that active bird nests will be impacted by the construction, the biologist will recommend a buffer in that area

to protect the nesting birds. Once the biologist determines that all birds have fledged the nest, vegetation removal may proceed.

e) **Policies or Ordinances.** The District has no ordinances or policies relating to biological resources. The District is not subject to County regulations.

f) **Habitat Conservation Plan.** The project site is not located in an area subject to a Habitat Local Conservation plan, Natural Community Conservation plan or other approved conservation plan. The project site is not located within any designated critical habitat for any federally-listed species.

7.0 REFERENCES AND LITERATURE CITED

California Department of Fish and Game. 2018. California Natural Diversity Data Base. Rarefind 5 Program, Natural Heritage Division, Sacramento, CA.

California Native Plant Society, 2018. Electronic Rare Plant Inventory, West Watsonville and surrounding eight quadrangles.

Hickman, J. 1993. The Jepson Manual Higher Plants of California. Berkeley: University of California Press.

Jepson Manual 2012. The Jepson Manual – Vascular Plants of California