INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

for the

LOMPICO WATER TANKS REPLACEMENT PROJECT

October 7, 2019

Prepared for

San Lorenzo Valley Water District
13060 Highway 9
Boulder Creek, CA 95006

Prepared by

Denise Duffy & Associates, Inc
947 Cass Street, Suite 5
Monterey, CA 93940

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(831) 373-4341

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Project Data

1 **Project Title:** Lompico Water Tanks Replacement Project

2 **Lead Agency Name and Address:** San Lorenzo Valley Water District, 13060 Highway 9, Boulder Creek, CA 95006

3 **Contact Person and Phone Number**: Rick Rogers, District Manager (831) 430-4624

4 **Project Proponent**: San Lorenzo Valley Water District (SLVWD)

5 **Project Location**: The project is the replacement of three water tanks. The Kaski, Madrone, and Lewis tank sites are located in the Lompico community in Santa Cruz County, California. The Kaski tank site is located approximately 750 feet (ft) northwest of the terminus of Tromba Road, the Madrone tank site is located approximately 650 ft northwest of the intersection of Madrone Avenue and Whilaway Avenue, and the Lewis tank site is located approximately 1,200 feet southwest of the intersection of Vera Avenue and West Drive.

6 **Santa Cruz County General Plan Designations**:

- Kaski tank site: Mountain Residential (R-M);
- Lewis tank site: Mountain Residential (R-M); and,
- Madrone tank site: Rural Residential (RR).

7 **Zoning**:

- Kaski tank site: Single Family Residential, 15,000 square feet to one-acre lot size (R-1-15);
- Lewis tank site: Special Use (SU); and,
- Madrone tank site: Single Family Residential, 15,000 square feet to one-acre lot size (R-1-15).

8 **Project Description**: The SLVWD proposes to replace aging water storage tanks at three distinct locations (Kaski, Madrone, and Lewis) with modern water storage tanks. Site improvements include the installation of two (2) 60,000-gallon steel tanks at the Kaski tank site and two (2) 60,000-gallon tanks at the Madrone tank site, to replace the existing redwood water storage tanks. At the Lewis tank site, improvements include installation of two (2) 110,000-gallon steel bolted water storage tanks to replace an existing 100,000-gallon redwood water storage tank. All tanks would be constructed within the existing disturbed area. Additional site improvements include installation of chain link security fences and pavement within the boundaries of the fencing.

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Chapter 1 Project Description

1.1 INTRODUCTION

This Initial Study has been prepared to evaluate the potential environmental effects associated with the Lompico Water Tank Replacement Project (project or proposed project), located in the Lompico community in Santa Cruz County, California (County). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code §21000 et. seq., and the State CEQA Guidelines, California Code of Regulations (CCR) §15000 et. seq.

An Initial Study is an informational document prepared by a lead agency to determine if a project may have a significant effect on the environment (CEQA Guidelines §15063, subd. (a)). If there is substantial evidence that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared, in accordance with CEQA Guidelines §15064(a). However, if the lead agency determines that revisions in the project plans or proposals made by or agreed to by the applicant mitigate the potentially significant effects to a less-than-significant level, an Initial Study/Mitigated Negative Declaration (IS/MND) may be prepared instead of an EIR (CEQA Guidelines §15070, subd. (b)). The lead agency prepares a written statement describing the reasons a proposed project would not have a significant effect on the environment and, therefore, why an EIR need not be prepared. This IS/MND conforms to the content requirements under CEQA Guidelines §15071.

The San Lorenzo Valley Water District (SLVWD) is acting as the lead agency pursuant to CEQA Guidelines §15050(a). The SLVWD serves the Lompico community in Santa Cruz County with approximately 498 residential service connections. As the lead agency, the SLVWD oversaw preparation of this Initial Study pursuant to CEQA Guidelines §15063, §15070, and §15152. This Initial Study will be circulated for agency and public review during a 30-day public review period pursuant to CEQA Guidelines §15073. Comments received by the SLVWD on this IS/MND will be reviewed and considered as part of the deliberative process in accordance with CEQA Guidelines §15074.

The following section is consistent with the requirements of CEQA Guidelines §15124 to the extent that it is applicable to the project. This section contains a detailed description of the project location, existing setting, project components and relevant project characteristics, and applicable regulatory requirements.

1.2 PROJECT LOCATION

The project, described below, is in the Lompico community in Santa Cruz County, California. The proposed project consists of three tank locations, the Kaski, Madrone, and Lewis tank sites, as shown in **Figure 1**. Regional access is provided to the project sites via Lompico Road and East Zayante Road, which connect to Highway 9 at Felton about 8 miles north of Lompico. **Figures 2, 3, and 4** show the location of the project site, surrounding uses, and site photos.

- ***Kaski Tank Site:*** The Kaski tank site is located on a 1.05-acre parcel (APN: 074-261-09) approximately 750 ft northwest of the terminus of Tromba Road. The tank site is partially developed and consists of two (2) existing 60,000-gallon redwood water tanks that are about 24 feet in diameter and about 18 feet tall. The site is surrounded by chain-link fencing. The site contains mixed evergreen and ruderal/disturbed vegetation. Surrounding land uses are single-family residential, and the site is accessed from a dirt driveway off Tromba Road. The Santa Cruz

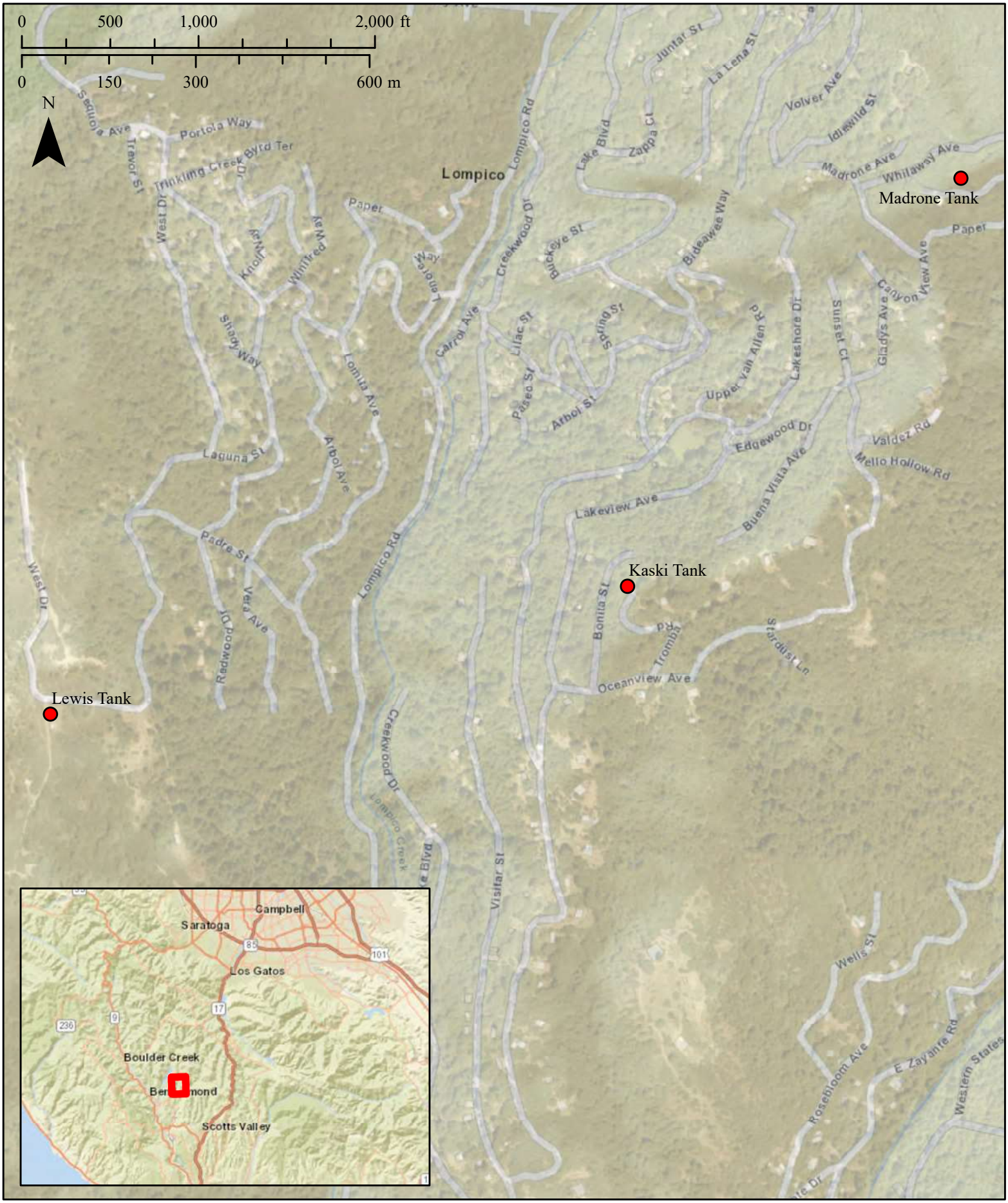
County General Plan designates the Kaski tank site as Mountain Residential (R-M) and the project site is zoned Single Family Residential, 15,000 square feet to one-acre lot size (R-1-15).

- ***Lewis Tank Site:*** The Lewis tank site is located on a 0.2-acre parcel (APN: 075-311-06) approximately 1,200 feet southwest of the intersection of Vera Avenue and West Drive. The tank site is partially developed and consists of one (1) 100,000-gallon redwood water tank that is approximately 30 feet in diameter and 20 feet tall. The site also includes facilities that are no longer in use, including a water well, and a water treatment building, three approximately 5.5-foot diameter steel pressure vessels and an aeration tower from the old treatment system. The site is surrounded by chain-link fencing. Existing vegetation at the site includes silverleaf manzanita (*Arctostaphylos silvicola*, California Native Plant Society [CNPS] California Rare Plant Rank [CRPR] 1B species) chaparral and ruderal/disturbed vegetation. Surrounding land uses are single-family residential, and the site is accessed from a dirt driveway off of West Drive. The Santa Cruz County General Plan designates the Lewis tank site as Mountain Residential (R-M) and the project site is zoned Special Use (SU).
- ***Madrone Tank Site:*** The Madrone tank site is located on two parcels, both 0.5-acres in size (APNs: 075-072-14 and 075-072-15), approximately 650 ft northwest of the intersection of Madrone Avenue and Whilaway Avenue. The tank site is partially developed and currently supports two (2) 60,000-gallon redwood water tanks, drain and water piping, and surrounding chain-link fencing. The site is characterized by mixed evergreen and ruderal/disturbed vegetation types. Surrounding land uses are single-family residential, and the site is accessed from a dirt driveway off Whilaway Avenue. The Santa Cruz County General Plan designates the Madrone tank site as Rural Residential (RR) and the project site is zoned Single Family Residential, 15,000 square feet to one-acre lot size (R-1-15).

1.3 PROJECT BACKGROUND

The SLVWD serves the Lompico community in Santa Cruz County with approximately 498 residential service connections. The Lompico water system is supplied from the SLVWD's Quail Zone via the Lompico Booster Pump Station. The Lompico water system consists of a network of 4-inch and 6-inch water mains, three water tank sites, a booster pump station, and six pressure reducing valve (PRV) stations.

The Lompico Water Tanks Replacement Project would occur at the three water tank sites: Lewis, Kaski, and Madrone. All the existing tanks have been compromised over time by corrosion and natural weather events and are currently leaking water.



Location Map

Date: 9/4/2019
Scale: 1 in = 700 ft
Project: 2018.62

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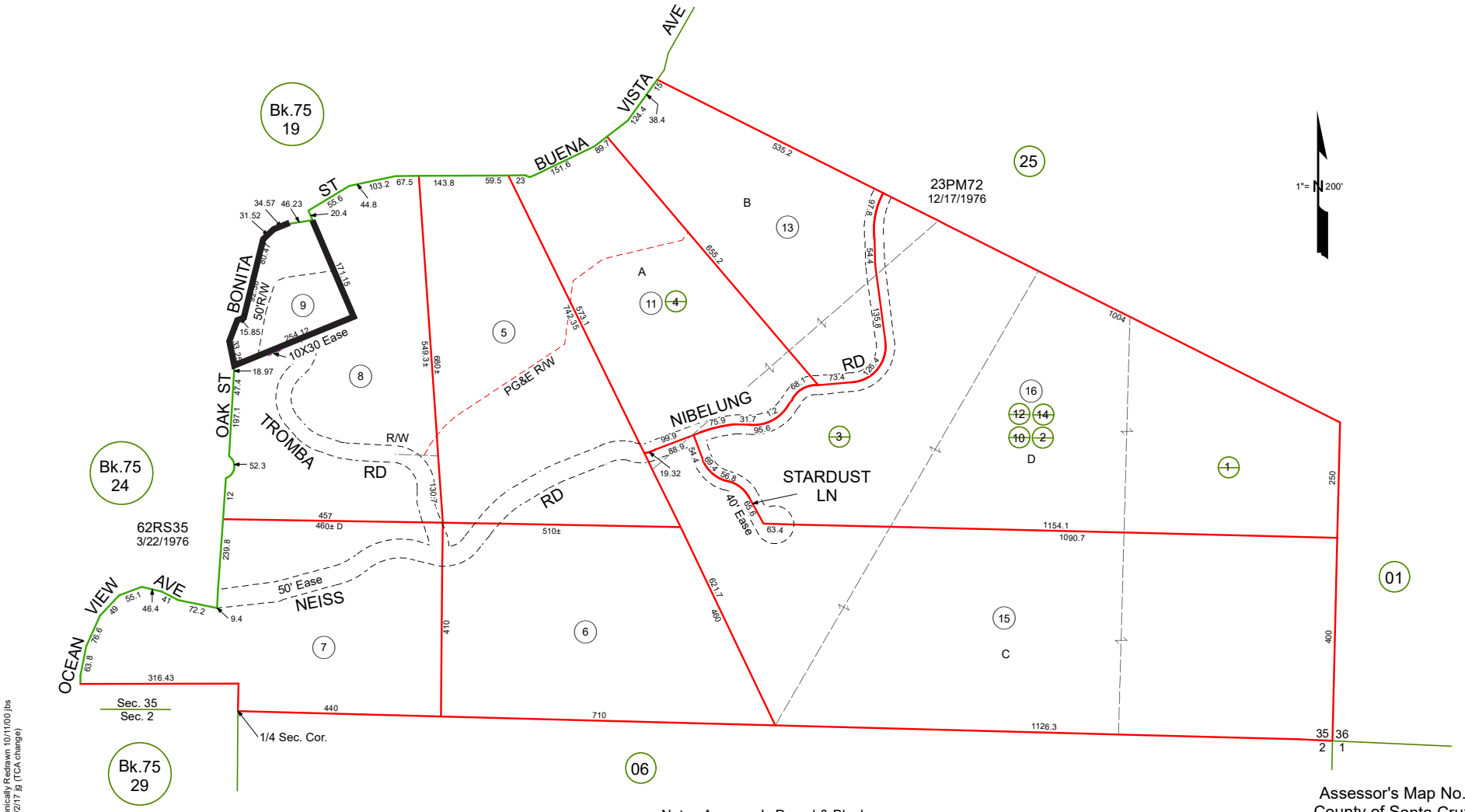
Figure 1

FOR TAX PURPOSES ONLY

POR. SEC. 35, T.9S., R.2W., M.D.B. & M.

Tax Area Code
90-074

74-26



Electronically Redrawn 10/11/00 jbs
Rev. 6/2/17 jg (TCA change)

Note - Assessor's Parcel & Block Numbers Shown in Circles.

Assessor's Map No. 74-26
County of Santa Cruz, Calif.
Sept. 2000

Project Boundaries

Source: Office of the Assessor, County of Santa Cruz, 2019

APN Map - Kaski Tank Site

Date: 9/4/2019

Project: 2018.62

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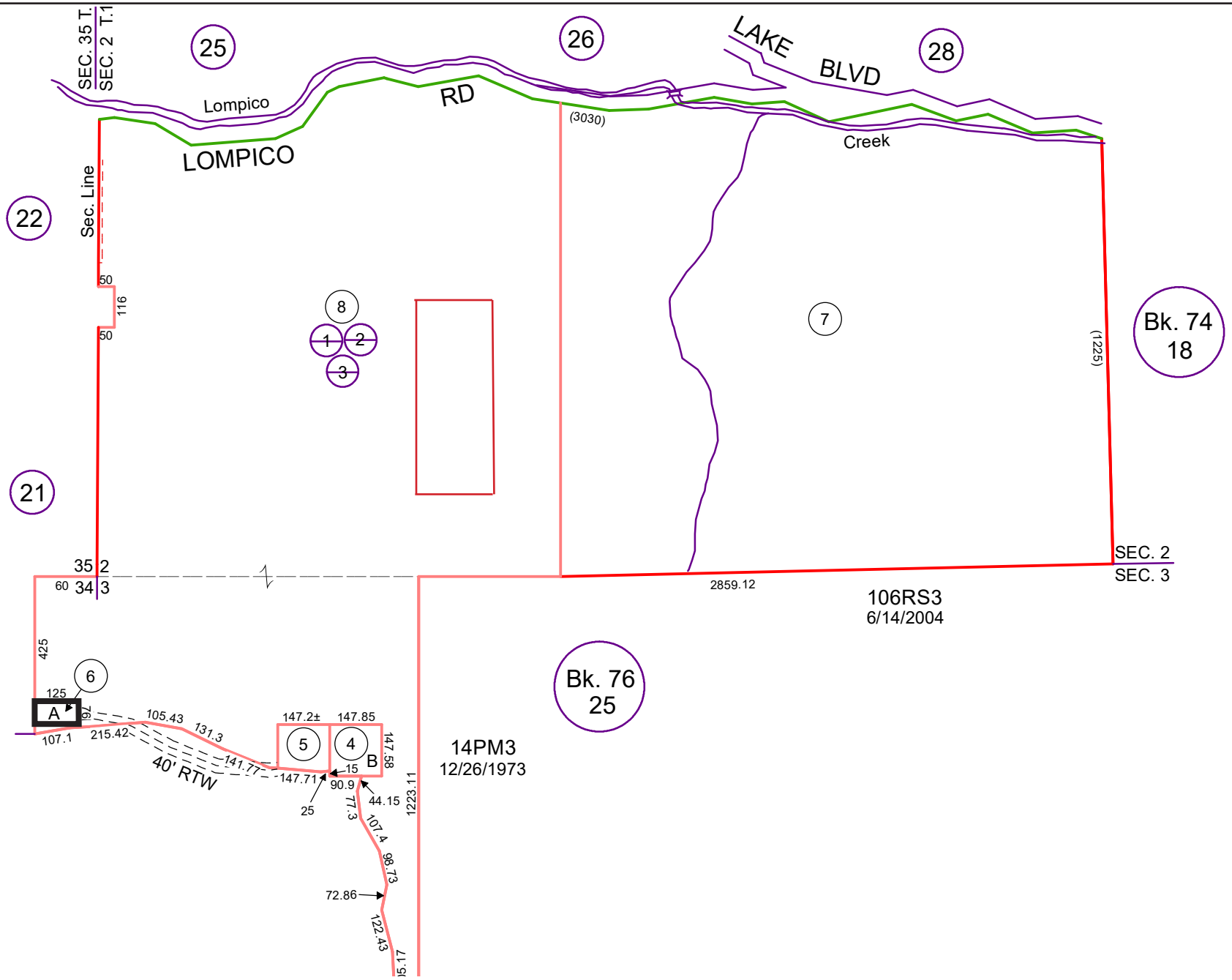
Figure
2a



Project Boundaries

Source: Office of the Assessor, County of Santa Cruz, 2019

APN Map - Lewis Tank Site

Date: 9/4/2019

Project: 2018.62

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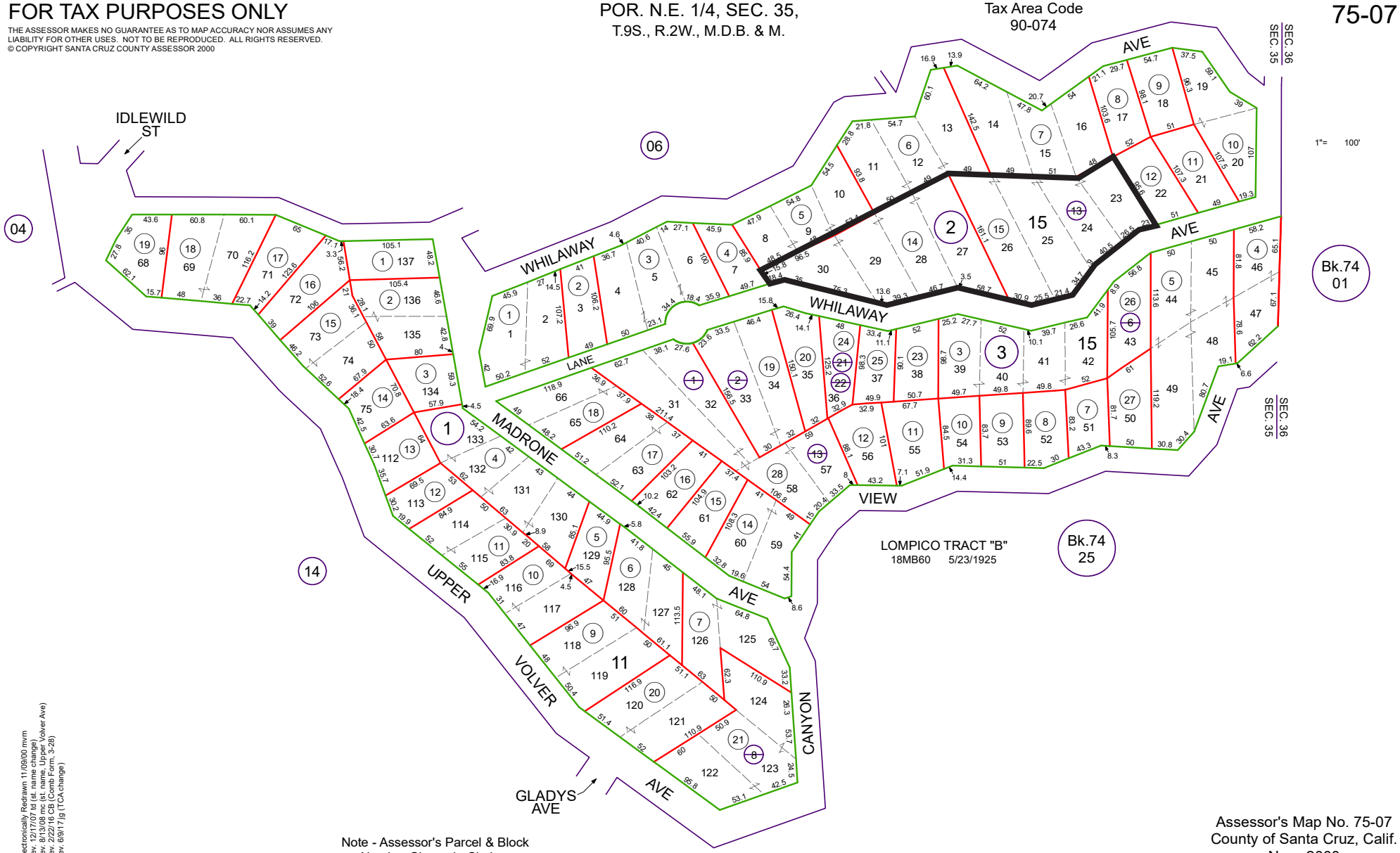
Figure 2b



Source: Office of the Assessor, County of Santa Cruz, 2019

APN Map - Madrone Tank Site

Date: 9/4/2019

Project: 2018.62

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Figure 2c

Kaski Tank Site Aerial

Date: 9/4/2019
Scale: 1 in = 80 ft
Project: 2018.62

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Figure
3a

Lewis Tank Site Aerial

Date: 9/4/2019
Scale: 1 in = 50 ft
Project: 2018.62

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Figure 3b

Madrone Tank Site Aerial

Date: 9/4/2019
Scale: 1 in = 40 ft
Project: 2018.62

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Figure
3c

Photo 1. View of Kaski tank site looking southwest, showing the existing leaky redwood tanks.

Photo 2. View of Lewis tank site looking south, showing the existing leaky redwood tank and abandoned water treatment infrastructure.

Photo 3: View of Madrone tank site looking north, showing the existing leaky redwood tanks.

Source: DD&A, December 2018

Site Photos

Date: 9/4/2019

Project: 2018.62

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Figure 4

1.4 PROJECT DESCRIPTION

The SLVWD is proposing to install two (2) 60,000-gallon steel bolted water storage tanks at the Kaski tank site and two (2) 60,000-gallon tanks at the Madrone tank site to replace the existing redwood water storage tanks. At the Lewis tank site, improvements include installation of two (2) 110,000-gallon steel bolted water storage tanks to replace an existing 100,000-gallon redwood water storage tank. Plans for the proposed water tanks are shown in **Figure 5**. All the new tanks would include concrete ringwall footing, would be steel bolted of similar volume to the existing tanks, and over essentially the same footprint. At all the sites the existing perimeter chain link fencing would also be replaced with a 6-ft tall chain-link fence with 3-strand barbed wire and a double swing gate (12-ft gate at Madrone and Lewis, 10-ft gate at Kaski) would provide access from existing dirt driveways. Each site would be paved with asphalt within the perimeter fencing.

The following discussion provides a more detailed description of key project elements, including site demolition, well destruction, grading, construction activities and schedule, as well as project operation.

1.4.1 Site Demolition

At each of the three tank sites, existing infrastructure would be removed. This includes the redwood tanks, chain-link fencing surrounding the sites, onsite water piping, and onsite tank drain piping. At the Kaski and Madrone sites, the existing tank concrete foundations would be removed. At the Lewis tank site, additional facilities would be removed, including a well, sludge piping, wood retaining walls, asphalt concrete (ac) pavement, and relic water treatment facilities.

1.4.2 Well Destruction

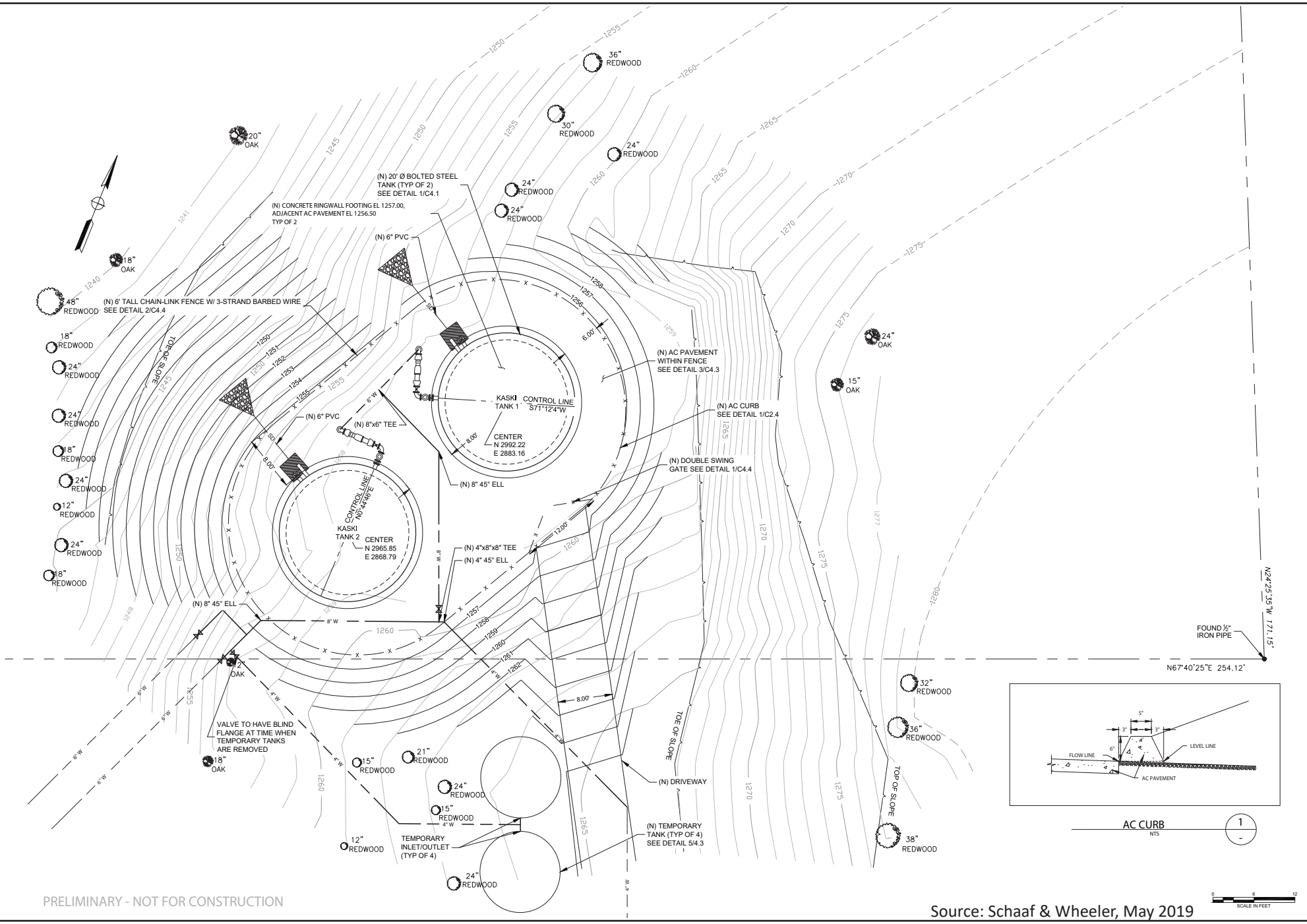
SLVWD proposes to destroy Well No. 5 at the Lewis tank site that is no longer being used. The well is approximately 400-feet deep with an 8-inch screen and casing.

Wells fall under the jurisdiction of the California State Water Resources Control Board's Division of Drinking Water (DDW) through the Central Coast Regional Water Quality Control Board and locally under the Environmental Health Division of the Santa Cruz County Health Services Agency. As required by Santa Cruz County Code Ordinance 7.70.100, well destruction shall be conducted under permit and by methods described in California water well standards Bulletin 74-81 and the supplemental Bulletin 74-90. Well destruction requires filling the well with concrete grout of neat cement and the removal of the well casing to about five feet below the surface. The annular space outside the well casing may also need to be sealed at certain depths by perforating solid portions of the casing and filling with neat cement grout.

The County Environmental Health Division along with the State DDW would be consulted to determine exact requirements for the destruction of the well. An Application for Well Permit would need to be submitted to the County Environmental Health Division. Well destruction would be performed by a licensed Well Drilling Contractor (California Contractor License Class C-57).

1.4.3 Grading

The project would require total grading (cut and fill) in the amount of approximately 250 cubic yards at the Lewis site, 200 cubic yards at the Kaski site, and 40 cubic yards at the Madrone site. The project would not require any import or export of cut and fill materials.



PRELIMINARY - NOT FOR CONSTRUCTION

Source: Schaaf & Wheeler, May 2019

Site Plans - Kaski Tank

Date: 9/4/2019

Project: 2018.62

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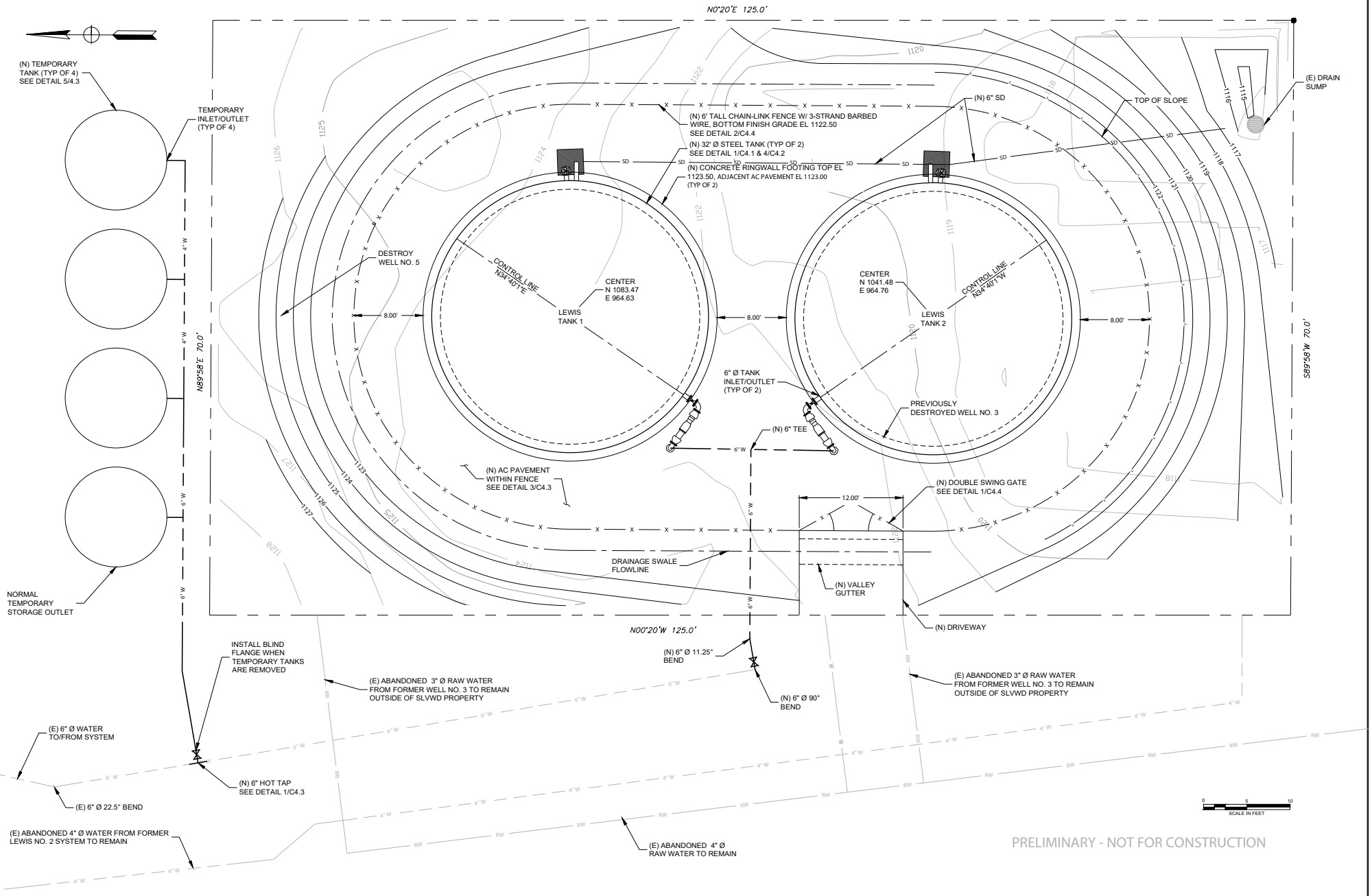
Figure 5a



Source: Schaaf & Wheeler, May 2019

Site Plans - Lewis Tank

Date: 9/4/2019

Project: 2018.62

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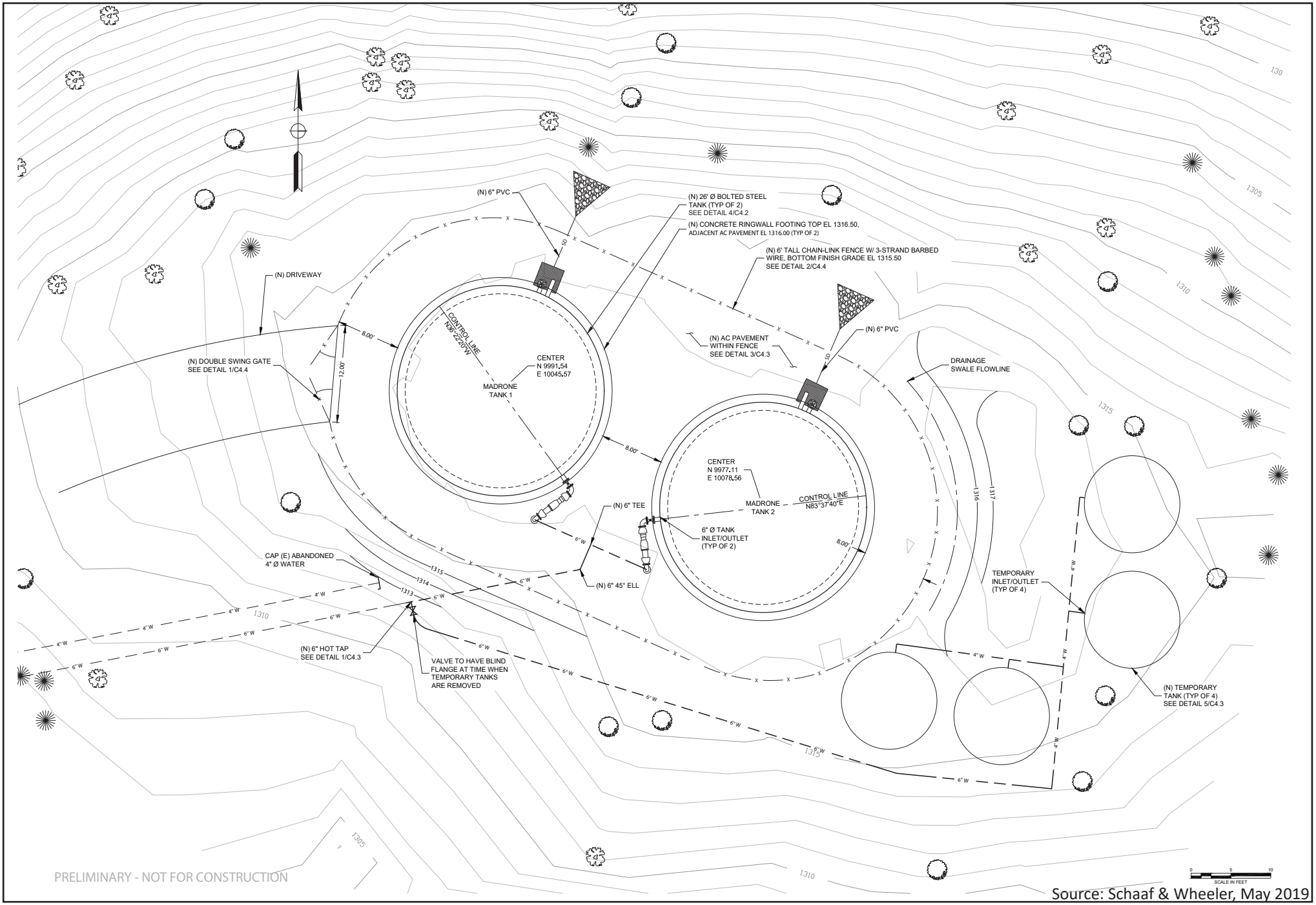
Figure 5b



Source: Schaaf & Wheeler, May 2019

Site Plans - Madrone Tank

Date: 9/4/2019

Project: 2018.62

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Figure 5c

1.4.5 Project Construction

Project construction is proposed within existing disturbed areas at each site. Construction would include demolition, site preparation and grading, building construction, paving, and architectural coating. Construction staging would be conducted on-site. During project construction, typical construction equipment that would be used on the project site include backhoes, dozers, pavers, concrete mixers, trucks, air compressors, saws, and hammers. Storage for each pressure zone must be maintained throughout the duration of construction. As a result, temporary high-density polyethylene (HDPE) tanks would be used for water storage during construction.

1.4.6 Construction Schedule

Construction of the project is scheduled to begin in spring of 2020 and take approximately six months to complete.

1.4.7 Drainage

As required by the site topography, drainage swales would be installed outside of the fence to convey surface runoff to percolation areas. A catch basin would be located adjacent to each tank to collect any water from the tank overflow. A tank drain connection with an isolation valve would also be provided near the catch basin to allow SLVWD to drain the tank if needed. There would be drainpipes exiting the catch basins and routed underground to daylight downhill of the tank sites. Drainpipes would discharge near the discharge locations of the existing drainpipes or as determined to be appropriate.

1.4.8 Operation

Maintenance activities for the tanks would consist of monthly inspections to observe the facility. Otherwise, all tank sites would be unmanned facilities.

1.5 REQUIRED PERMITS

California Government Code Section 53091 (d) and (e) provides that facilities for the production, generation, storage, treatment, or transmission of water supplies are exempt from local (i.e., city and county) building and zoning ordinances. The project relates exclusively to the storage of water and is, therefore, legally exempt from Santa Cruz County building and zoning ordinances. However, the proposed project would require the following permits and/or approvals:

- Compliance with the Federal Endangered Species Act;
- Well Permit from Santa Cruz Environmental Health Division and California State Water Resources Control Board's Division of Drinking Water for destruction of the well; and,
- Domestic Water Supply Permit Amendment with the California State Water Resources Control Board's Division of Drinking Water.

1.6 PROJECT OBJECTIVES

The Lompico Water Tanks Replacement Project is proposed to replace the existing outdated tanks and associated structures. The replacement project would be constructed with essentially the same purpose, size, and capacity as the existing facilities and would not involve any expansion of use or services.

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Chapter 2 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist within Chapter 4. Initial Study Environmental Impacts. Sources used for analysis of environmental effects are cited in parentheses after each discussion and are listed in Chapter 5. References.

☐ Aesthetics	☐ Agricultural 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

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Chapter 3 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.

Rick Rogers
Signature

10/23/2019
date

RICK ROGERS
Printed Name

San Lorenzo Valley Water Dist.
for

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Chapter 4 Initial Study Environmental Checklist

The following chapter assesses the environmental consequences associated with the proposed project. Mitigation measures, where appropriate, are identified to address potential impacts.

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on project-specific screening analysis).

2. All answers must take into account the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level mitigation measures from Section 5. below ("Earlier Analyses", may be cross-referenced).

5. "Earlier Analyses" may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

a) "Earlier Analysis" Used. Identify and state where they are available for review.

b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated", describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

a) The significance criteria or threshold, if any, used to evaluate each question; and

b) The mitigation measure identified, if any, to reduce the impact to less than significance.

4.1 AESTHETICS

4.1.1 Environmental Setting

The proposed tank sites are previously disturbed by the existing water supply infrastructure and are surrounded by residential uses. The nearest residences are located approximately 161 feet to the southeast of the Kaski tank site, 230 feet northwest of the Lewis tank site, and 150 feet south of the Madrone tank site. Photos of the project sites are presented in **Figure 4,** above. The Kaski and Madrone tank sites are located in evergreen forest areas and are not visible from any adjacent residences, however, they would be visible from adjacent public roads. The Lewis tank site would be visible from adjacent residences and public roads.

4.1.2 Environmental Impacts

ENVIRONMENTAL IMPACTS		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS. Except as provided in Public Resources Code Section 21099, 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)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

4.1.3 Explanation

a) **No Impact**. The project would not impact any public scenic vistas, as designated in the Santa Cruz County General Plan and mapped in the County Geographic Information System (GIS), or obstruct any public views of these visual resources. The Kaski and Madrone project sites are located within mixed evergreen forest and the Lewis site is located within chaparral habitat. Although the project sites are within a natural setting the proposed project would replace tanks of similar size and height at sites that are already disturbed. The proposed tanks and associated facilities would not have an adverse effect on a scenic vista. See c) below for further discussion. (1, 2, 9 & 10)

b) **No Impact**. The State Scenic Highways Program is designed to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The Santa Cruz County General Plan does not designate any scenic resources within Lompico. The closest scenic routes include Highway 9 which is 2.5 miles east of the proposed project site and Highway 17 which is about 4 miles to the west. Due to proximity the project would not substantially damage any scenic resources. (1, 2, 9 & 10)

c) **Less than Significant Impact**. The project would replace existing redwood tanks with new steel water tanks. Tank design includes architectural coatings that blend in with the surrounding natural environment, such as dark green or tan colors. All of the new tanks would be of similar volume to the existing tanks, and encompass essentially the same footprint. Kaski and Madrone sites are screened from adjacent residences by evergreen forest. However, the proposed tanks would be visible from adjacent residences at the Lewis site. Since the proposed tank improvements would be consistent with the existing disturbed nature of the site and would be of similar size and height to the existing tanks, this is considered a less than significant impact. The tank and associated facilities would be consistent with the existing visual character of the parcel. Given that the project is consistent with the existing use of the sites and screening of the new tanks would be provided by adjacent evergreen forest, the project would not substantially degrade the visual character or quality of the area. (1, 2)

d) **No Impact**. The Lewis site has one existing outside light that would be retained; otherwise, the project does not propose any exterior lighting. Therefore, the project would not create a source of light or glare that may affect day or nighttime views in the area. (1, 2)

4.2 AGRICULTURAL RESOURCES

4.2.1 Environmental Setting

The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), established by the State Legislature in 1982, assesses the location, quality, and quantity of agricultural lands. In addition, the FMMP monitors the conversion of these lands over time. The FMMP is a non-regulatory program contained in Section 612 of the Public Resources Code. The Program contains five farmland categories (Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing) with a purpose of providing consistent and impartial analysis of agricultural land use and land use changes throughout California. The five farmland categories consist of the following:

- Prime Farmland (P) comprises the best combination of physical and chemical features able to sustain long-term agricultural production. Irrigated agricultural production is a necessary land use four years prior to the mapping date to qualify as Prime Farmland. The land must be able to store moisture and produce high yields.
- Farmland of Statewide Importance (S) possesses similar characteristics to Prime Farmland with minor shortcomings, such as less ability to hold and store moisture and more pronounced slopes.
- Unique Farmland (U) has a production history of propagating crops with high-economic value.
- Farmland of Local Importance (L) is important to the local agricultural economy. Local advisory committees and a county specific Board of Supervisors determine this status.
- Grazing Land (G) is suitable for browsing or grazing of livestock.

The project site is in a generally forested area identified as "Other Land" on the Santa Cruz County Important Farmlands Map (2016). The project site does not contain any land designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance.

The Williamson Act, codified in 1965 as the California Land Conservation Act, allows local governments to enter into contracts with private landowners, offering tax incentives in exchange for an agreement that the land will remain as agricultural or related open space use for a period of 10 years. The project site is not under a Williamson Act contract.

According to the California Public Resources Code §4526, the California Board of Forestry and Fire Protection defines "Timberland" as land not owned by the federal government, nor designated as experimental forest land, which is capable and available for growing any commercial tree species. The board defines commercial trees on a district basis following consultation with district committees and other necessary parties. The site does not contain any forest land as defined in Public Resources Code section 12220(g), timberland as defined by Public Resources Code section 4526, or property zoned for Timberland Production as defined by Government Code section 51104(g).

4.2.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
AGRICULTURAL 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 Dept. 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?	☐	☐	☐	☒
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 uses?	☐	☐	☐	☒
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?	☐	☐	☐	☒

4.2.3 Explanation

a) **No Impact**. The project site is designated as "Other Land" on the Important Farmlands Map for Santa Cruz County and does not contain any Prime, Unique, or Farmland of Statewide Importance. The project would not impact any agricultural land. (1, 3)

b) **No Impact**. The project site is not zoned for agricultural use and does not contain Williamson Act lands; therefore, no conflicts would occur. (1, 3)

c) **No Impact**. Although the project area supports evergreen forest, the land is not in a timber harvest area. The proposed project would not conflict with existing zoning for, or cause rezoning of, forest or timber lands. (1, 3)

d) **No Impact**. See c) above. As the project is not designated as farmland or forest land and includes site improvements which are similar to the existing use, no other changes to the environment would occur from the project that would result in the loss of forest land or conversion of forest land to non-forest uses. (1, 3)

e) **No Impact**. As per the discussion above, the project would not involve changes in the existing environment which, due to their location or nature, could result in conversion of farmland or forest land, since none are present on this infill property. (1, 3)

4.3 AIR QUALITY

4.3.1 Environmental Setting

The Federal Clean Air Act and the California Clean Air Act mandate the control and reduction of certain air pollutants. Under these Acts, the United States Environmental Protection Agency and the California Air Resources Board have established ambient air quality standards for specific "criteria" pollutants. These pollutants are carbon monoxide (CO), ozone (O_3), sulfur dioxide (SO_2), nitrogen oxides (NO_X), particulate matter less than 10 microns in diameter (PM_{10}), lead and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$). The project site is located within the North Central Coast Air Basin, which is comprised of Santa Cruz, San Benito, and Monterey Counties, and is regulated by the Monterey Bay Air Resources District (MBARD, formally known as Monterey Bay Unified Air Pollution Control District).

The U.S. EPA administers the National Ambient Air Quality Standards (NAAQS) under the Federal Clean Air Act. The U.S. EPA sets the NAAQS and determines if areas meet those standards. Violations of ambient air quality standards are based on air pollutant monitoring data and evaluated for each air pollutant. Areas that do not violate ambient air quality standards are considered to have attained the standard. The North Central Coast Air Basin (NCCAB) is in attainment for all NAAQS and for all California Ambient Air Quality Standards (CAAQS) except O_3 and PM_{10}. The primary sources of O_3 and PM_{10} in the NCAAB are from automobile engine combustion. To address exceedance of these CAAQS, the MBARD has developed and implemented several plans including the 2005 Particulate Matter Plan, the 2007 Federal Maintenance Plan, and the 2012-2015 Air Quality Management Plan (AQMP), a revision to the 2012 Triennial Plan. NCCAB Attainment Status to National and California Ambient Air Quality can be found in **Table 1** below.

Table 1
North Central Coast Air Basin Attainment Status – January 2015

Pollutant	State Standards[1]	National Standards
Ozone (O_3)	**Nonattainment**[2]	Attainment/Unclassified[3]
Inhalable Particulates (PM_{10})	**Nonattainment**	Attainment
Fine Particulates ($PM_{2.5}$)	Attainment	Attainment/Unclassified[4]
Carbon Monoxide (CO)	Monterey Co. – Attainment San Benito Co. – Unclassified Santa Cruz Co. – Unclassified	Attainment/Unclassified
Nitrogen Dioxide (NO_2)	Attainment	Attainment/Unclassified[5]
Sulfur Dioxide (SO_2)	Attainment	Attainment[6]
Lead	Attainment	Attainment/Unclassified[7]

Notes:
1) State designations based on 2010 to 2012 air monitoring data.
2) Effective July 26, 2007, the CARB designated the NCCAB a nonattainment area for the State ozone standard, which was revised in 2006 to include an 8-hour standard of 0.070 ppm.
3) On March 12, 2008, EPA adopted a new 8-hour ozone standard of 0.075 ppm. In April 2012, EPA designated the NCCAB attainment/unclassified based on 2009-2011 data.
4) This includes the 2006 24-hour standard of 35 $\mu g/m^3$ and the 2012 annual standard of 12 $\mu g/m^3$.
5) In 2012, EPA designated the entire state as attainment/unclassified for the 2010 NO2 standard.
6) In June 2011, the CARB recommended to EPA that the entire state be designated as attainment for the 2010 primary SO_2 standard. Final designations to be addressed in future EPA actions.
7) On October 15, 2008 EPA substantially strengthened the national ambient air quality standard for lead by lowering the level of the primary standard from 1.5 $\mu g/m^3$ to 0.15 $\mu g/m^3$. Final designations were made by EPA in November 2011.
8) Nonattainment designations are highlighted in **Bold**.
Source: CARB Area Designation Maps website http://www.arb.ca.gov/desig/adm/adm.htm and EPA Green Book Nonattainment Areas for Criteria Pollutants http://www.epa.gov/air/oaqps/greenbk/index.html .

Plans to attain these standards already accommodate the future growth projections available at the time these plans were prepared. Any development project capable of generating air pollutant emissions exceeding regionally-established criteria is considered significant for the purposes of CEQA, whether or not such emissions have been accounted for in regional air planning. Any project that would directly cause or substantially contribute to a localized violation of an air quality standard would generate substantial air pollution impacts. The same is true for a project that generates a substantial increase in health risks from toxic air contaminants.

Sensitive receptors are more susceptible to the effects of air pollution than the general population. Land uses that are considered sensitive receptors include residences, schools, and health care facilities. Sensitive receptors in the vicinity of the project sites consist of existing adjacent residences. The closest residence is 150 feet southwest of the Madrone site; other adjacent residences are located 220 feet northwest of the Lewis site and 170 feet southeast of the Kaski site.

4.3.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
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 to odors adversely affecting a substantial number of people?	☐	☐	☒	☐

4.3.3 Explanation

a) **Less Than Significant Impact**. CEQA Guidelines §15125(b) requires an evaluation of project consistency with applicable regional plans, including the AQMP. As stated above, the MBARD has developed and implemented several plans to address exceedance of State air quality standards, including the MBARD 2012-2015 AQMP. The MBARD 2012-2015 AQMP accommodates growth by projecting growth in emissions based on population forecasts prepared by the Association of Monterey Bay Area Governments (AMBAG) and other indicators. The proposed project would not induce potential population growth beyond existing levels; therefore, the project would not conflict with and/or obstruct the implementation of the MBARD 2012-2015 AQMP, or any other plans to address exceedance of State air quality standards.

The MBARD 2008 CEQA Air Quality Guidelines contains standards of significance for evaluating potential air quality effects of projects subject to the requirements of CEQA (see Table 5-1, pg. 5-

14, of the MBARD 2008 CEQA Guidelines). According to the MBARD 2008 CEQA Guidelines, a project would result in a potentially significant construction effect related to PM_{10} emissions if it would result in 8.1 acres per day of minimal earthmoving or 2.2 acres per day of earthmoving (i.e., grading and excavation). As noted previously, the largest project site is the Kaski site, which includes a 1.05-acre parcel, and does not exceed the MBARD threshold. In addition, the project would implement standard construction Best Management Practices (BMPs) related to dust suppression, which would include: 1) watering active construction areas; 2) prohibiting grading activities during periods of high wind (over 15 mph); 3) covering trucks hauling soil; and, 4) covering exposed stockpiles. The implementation of BMPs would further ensure that potential construction-related emissions would be minimized. This represents a less than significant impact. Thus, no significant dust generation or PM_{10} emissions impacts would be expected to occur in the vicinity of the project site during construction activities.

The project would require the temporary use of equipment for excavation, grading, construction, and transport of materials which would generate air emissions. The temporary short-term nature of the construction emissions would be less than significant and would not result in any criteria air pollutant emissions at a level that would violate any air quality standard or contribute substantially to any air quality violations. According to the MBARD construction projects using typical construction equipment that temporarily emit precursors of ozone [i.e., volatile organic compounds (VOC) or NOx], are accommodated in the emission inventories of State- and federally-required air plans and would not have a significant impact on the attainment and maintenance of the Ambient Air Quality Standards for ozone. For these reasons, the temporary construction-related impacts would not result in cumulatively considerable pollutant emissions.

The project would not generate air quality emissions in connection with the operation of the water tanks. The water tanks are unmanned. Also, the site is already occupied by water tanks for similar uses. Maintenance trips associated with the proposed project would not cause in an increase in trips beyond those that are already occurring. The project would not cause an increase in motor vehicle trips to the water tank for maintenance and the water tank facility is unmanned, therefore operation the proposed water tanks would not result generate air quality emissions that would conflict with or obstruct implementation of the applicable air quality plan. (1, 4, 5)

b) **Less than Significant Impact**. The proposed water tank would not result in a cumulatively considerable net increase of any air pollutant for which the project region is in non-attainment. Project construction and operation would not result in a significant air quality impact (see Response b, above). All impacts would be below applicable MBARD thresholds of significance, including thresholds for ozone precursors. Since there would be no significant impacts, project construction and operation would not result in a cumulatively considerable net increase in any criteria pollutant. Air quality impacts associated with the project would not be significant. (1, 5)

c) **Less than Significant Impact**. A "sensitive receptor" is generally defined as any residence including private homes, condominiums, apartments, or 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. There are several residences within the vicinity of the proposed project tank sites. The closest residence is located approximately 150 feet southwest of the Madrone site. The MBARD's 2008 CEQA Air Quality Guidelines state that a project would have a significant impact to sensitive receptors if it would cause a violation of any CO, PM_{10}, or toxic air contaminant standards at an existing or reasonably foreseeable sensitive receptor.

As stated above, the project would implement standard air quality BMPs during construction, and emissions of CO resulting from construction of the proposed project are below applicable MBARD thresholds of significance. As discussed in Response b, above, the proposed project would not exceed any MBARD thresholds, including CO and PM_{10}. Compliance with applicable MBARD regulations would also include, but is not limited to, Rule 402[1], which would minimize potential nuisance impacts to occupants of nearby land uses. For these reasons, construction activities would have a less than significant impact on sensitive receptors. (1, 2, 4, 5)

d) **Less than Significant Impact**. The proposed project consists of water tanks and related facilities. Common sources of odors and odor complaints are uses such as transfer stations, recycling facilities, painting/coating facilities, landfills, and wastewater treatment plants. The proposed project would not create new sources of odor. During construction, use of diesel-powered vehicles and equipment could temporarily generate localized odors, which would cease upon project completion. This represents a temporary impact and implementation of abatement measures for construction period emissions identified in Response c, above, would further assure that this impact is less than significant. (1)

[1] MBARD Rule 402 "Nuisance" states, "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals."

4.4 BIOLOGICAL RESOURCES

4.4.1 Environmental Setting

A Biological Resources Report (DD&A 2019) was prepared for the project by DD&A biologists and the full report is contained in **Appendix A**. DD&A biologists conducted surveys of all three tank sites on December 14, 2018 to perform an initial evaluation, identify potential sensitive habitats, and identify any special-status plant or wildlife species present or potentially present within the survey areas, which included everything within the existing chain link fence at each tank location as well as a 50-foot buffer from the fence line (**Figure 6a-6c**). The buffer area was included to capture any potential impacts that may occur during grading of the site. During the initial site survey focused botanical surveys were conducted only for perennial special-status plant species that can be identified outside of their blooming period; an analysis of all other special-status plant species known to occur within the project vicinity was conducted to determine the potential for their presence within the survey areas based on presence of suitable habitats, soils, elevation range, and currently known geographic range.

Following the initial survey effort DD&A biologists conducted focused botanical surveys of the Lewis tank site on May 2 and July 26, 2019 to determine presence of spring- and summer-blooming special-status plants. The survey area included everything within the existing chain link fence at the Lewis tank site as well as a 50-foot buffer of the fence line (**Figure 6c**).

Special Status Species

Special-status species are those plants and animals that have been formally listed or proposed for listing as Endangered or Threatened or are Candidates for such listing under the Endangered Species Act (ESA) or California Endangered Species Act (CESA). Listed species are afforded legal protection under the ESA and CESA. Species that meet the definition of Rare or Endangered under the CEQA Section 15380 are also considered special-status species. Animals on the CDFW's list of "species of special concern" (most of which are species whose breeding populations in California may face extirpation if current population trends continue) meet this definition and are typically provided management consideration through the CEQA process, although they are not legally protected under the ESA or CESA.

Plants listed as rare under the California Native Plant Protection Act (CNPPA) or included in CNPS California Rare Plant Rank (CRPR; formerly known as "CNPS Lists") 1A, 1B, 2A, 2B, 3, and 4 are also treated as special-status species as they meet the definitions of Sections 2062 and 2067 of the CESA and in accordance with CEQA Guidelines Section 15380.[2] In general, CDFW requires that plant species on CRPR 1A (Plants presumed extirpated in California and Either Rare or Extinct Elsewhere), CRPR 1B (Plants rare, threatened, or endangered in California and elsewhere), CRPR 2A (Plants presumed extirpated in California, but more common elsewhere); CRPR 2B (Plants rare, threatened, or endangered in California, but more common elsewhere), CRPR 3 (Plants about which we need more information - a review list), and CRPR 4 (Plants of limited distribution - a watch list) of the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2019) be fully considered during the preparation of environmental documents relating to CEQA.[3] In addition, species of vascular plants, bryophytes, and lichens listed as having special-status by CDFW are considered special-status plant species (CDFW, 2019a).

[2] CNPS initially created five CRPR in an effort to categorize degrees of concern; however, in order to better define and categorize rarity in California's flora, the CNPS Rare Plant Program and Rare Plant Program Committee have developed the new CRPR 2A, and CRPR 2B.

[3] Species on CRPR 3 and CRPR 4 may, but generally do not, meet the definitions of Sections 2062 and 2067 of CESA, and are not typically considered in environmental documents relating to CEQA.

Kaski Tank Survey Area Vegetation Map

Date: 2/20/2019
Scale: 1 in = 50 ft
Project: 2018.62

Monterey | San Jose
Denise Duffy and Associates, Inc.
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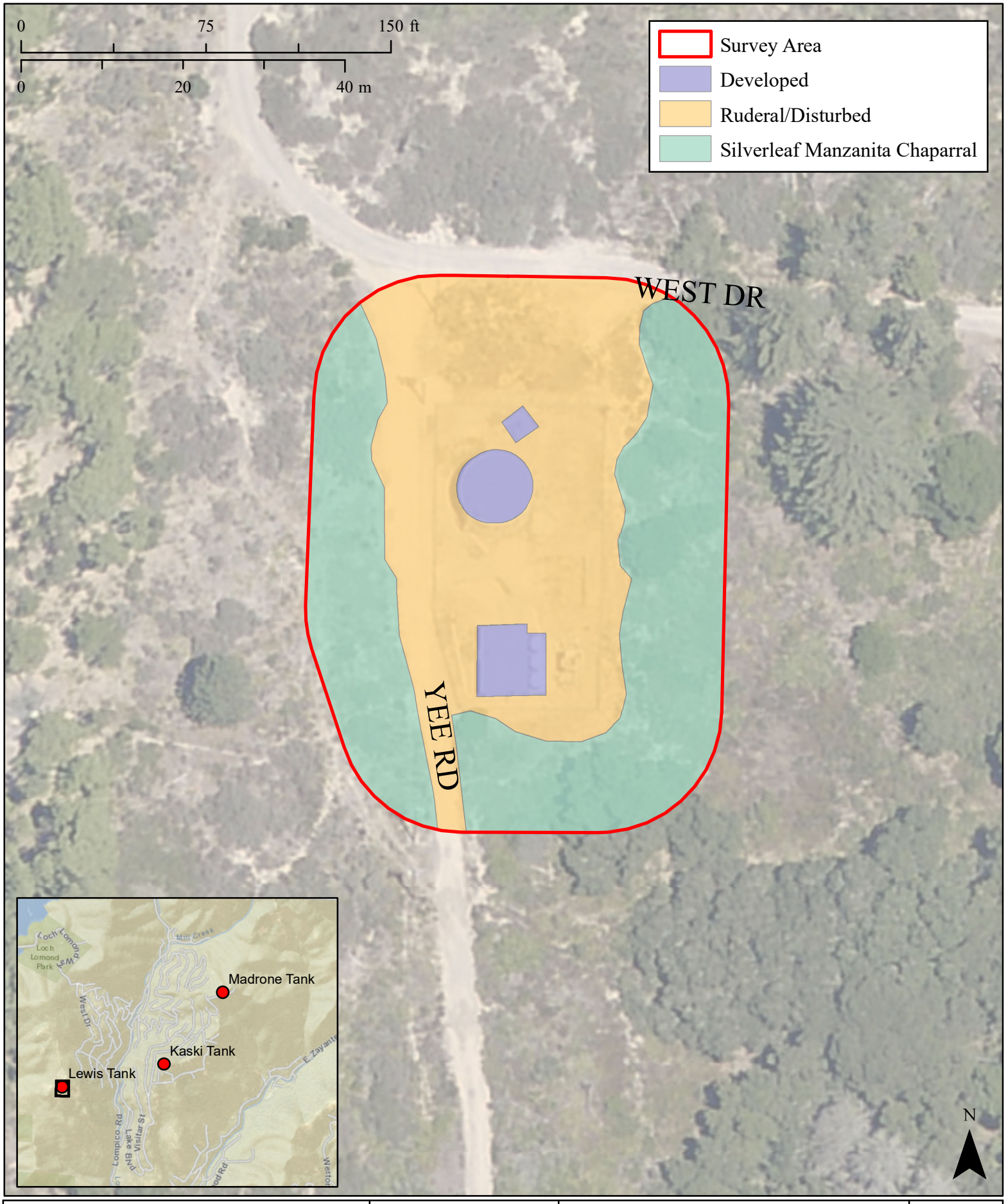
Figure 6a



Lewis Tank Survey Area Vegetation Map

Date: 9/4/2019
Scale: 1 in = 50 ft
Project: 2018.62

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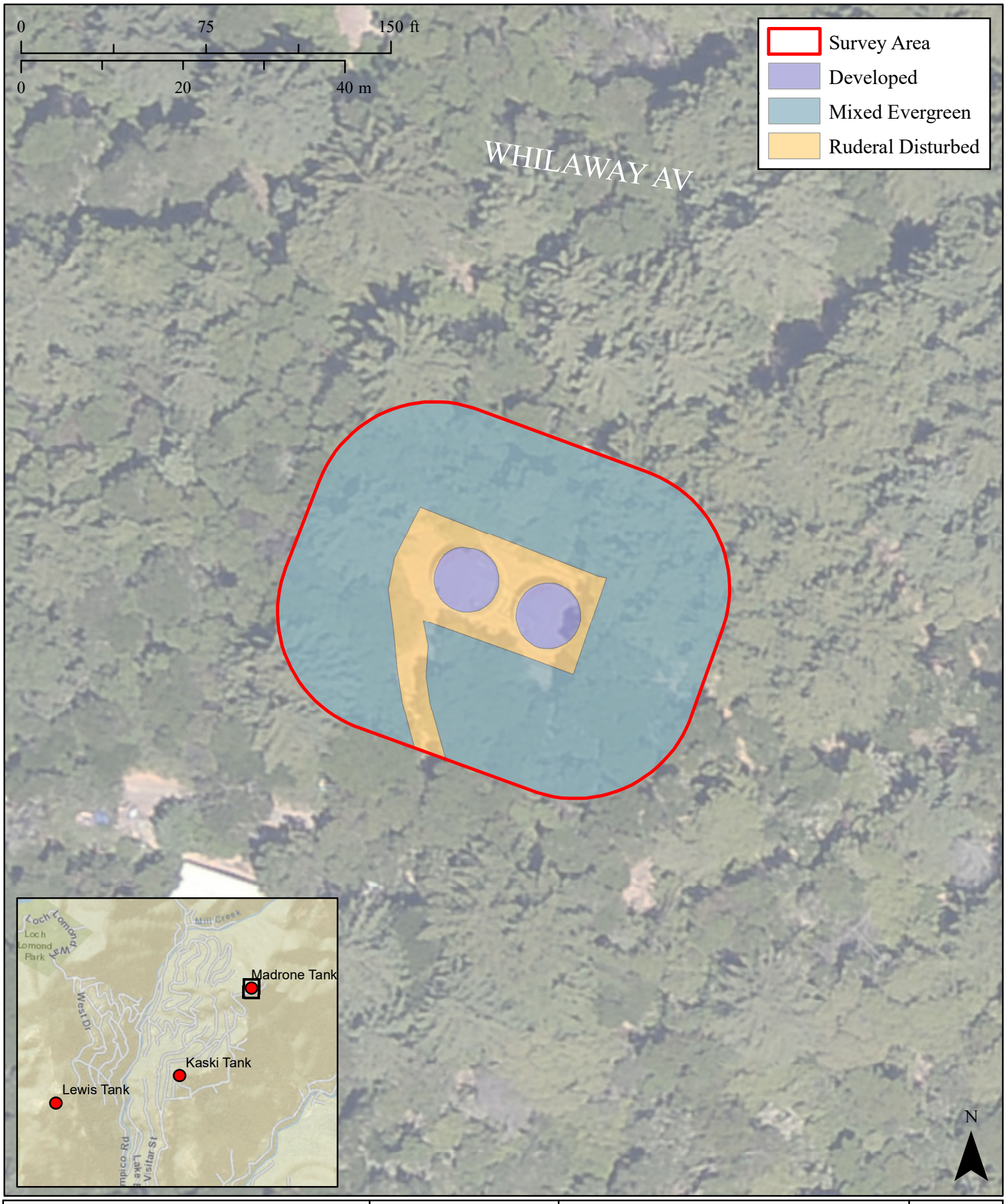
Figure 6b



Madrone Tank Survey Area Vegetation Map

Date: 9/4/2019
Scale: 1 in = 50 ft
Project: 2018.62

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Figure
6c

Raptors (e.g., eagles, hawks, and owls) and their nests are protected in California under Fish and Game Code Section 3503.5. Section 3503.5 states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird except otherwise provided by this code or any regulation adopted pursuant thereto."

In addition, fully protected species under the Fish and Game Code Section 3511 (birds), Section 4700 (mammals), Section 5515 (fish), and Section 5050 (reptiles and amphibians) are also considered special-status animal species. Species with no formal special-status designation but thought by experts to be rare or in serious decline may also be considered special-status animal species in some cases, depending on project-specific analysis and relevant, localized conservation needs or precedence.

4.4.2 Sensitive Habitats

Sensitive habitats include riparian corridors, wetlands, habitats for legally protected species, areas of high biological diversity, areas supporting rare or special-status wildlife habitat, and unusual or regionally restricted habitat types. Vegetation types considered sensitive include those identified as sensitive on the CDFW's *Natural Communities List* (i.e., those habitats that are rare or endangered within the borders of California) (CDFW, 2019c), and those that are occupied by species listed under ESA or are critical habitat in accordance with ESA. Specific habitats may also be identified as sensitive in city or county general plans or ordinances. Sensitive habitats are regulated under federal regulations (such as the CWA and Executive Order 11990 – Protection of Wetlands), state regulations (such as CEQA and the CDFW Lake and Streambed Alteration Program), or local ordinances or policies (such as city or county tree ordinances and general plan policies).

4.4.3 Results

Kaski Tank Site

Two vegetation types[4] were observed within the Kaski tank survey area: mixed evergreen and ruderal/disturbed (**Figure 6a)**. The canopy associated with mixed evergreen is dominated by redwood (*Sequoia sempervirens*). Several other tree species are present at less dominant distributions, including California bay (*Umbellularia californica*), madrone (*Arbutus menziesii*), toyon (*Heteromeles arbutifolia*), Douglas fir (*Pseudotsuga menziesii* var. *menziesii*), and coast live oak (*Quercus agrifolia*). The understory is mostly bare ground or covered with duff. Sparse vegetation found within the understory includes sword fern (*Polystichum munitum*), wood fern (*Woodwardia fimbriata*), California rose (*Rhododendron macrophyllum*), snowberry (*Symphoricarpos* sp.), poison oak (*Toxicodendron diversilobum*), and blackberry (*Rubus armeniacus*). No vegetation is present within the access road. A complete list of plants observed during the site visit is provided in *Appendix B* of **Appendix A.**

Lewis Tank Site

Two vegetation types were observed within the Lewis tank survey area: silverleaf manzanita chaparral and ruderal/disturbed (**Figure 6b)**. The site is dominated by herbaceous plants including primarily exotic annual grasses and forbs including redstem filaree (*Erodium cicutarium*), rattail fescue (*Festuca myuros*), smooth cat's ears (*Hypochaeris glabra*), and ripgut brome (*Bromus diandrus*). The area surrounding the Lewis tank site is occupied by silverleaf manzanita chaparral, a plant community found within the sandhills ecosystem on Zayante soils in central Santa Cruz County (McGraw, 2016). Shrubs within the Lewis tank site include silverleaf manzanita, deer weed (*Acmispon glaber*), silver bush lupine (*Lupinus albifrons var. albifrons*),

[4] A third classification for ground cover was also observed at all tank sites; developed. This ground cover type consists of the existing water supply infrastructure and other impervious areas (cement/pavement).

and yerba santa (*Eriodictyon californicum*). A complete list of plants observed during the site visit is provided in *Appendix B* of **Appendix A.**

Madrone Tank Site

Two vegetation types were observed within the Madrone tank survey area: mixed evergreen and ruderal/disturbed (**Figure 6c**). The canopy associated with mixed evergreen is dominated by redwood. Several other tree species are present at less dominant distributions, including California bay, madrone, toyon, Douglas fir, and coast live oak. The understory is mostly bare ground or covered with duff. Sparse vegetation found within the understory includes sword fern, wood fern, California rose, snowberry, poison oak and blackberry. No vegetation is present within the access road. A complete list of plants observed during the site visit is provided in *Appendix B* of **Appendix A.**

Special-Status Wildlife Species

Published occurrence data within the survey areas and surrounding USGS quadrangles were evaluated to compile a table of special-status species known to occur in the vicinity of the project.[5] Each of these species was evaluated for their likelihood to occur within and immediately adjacent to the survey areas. The special-status wildlife species that are known to or have been determined to have a moderate to high potential to occur within or immediately adjacent to the survey areas are discussed below. All other wildlife species within the table are assumed "not present," "unlikely to occur," or have a low potential to occur within the survey areas for the species-specific reasons presented in *Appendix C* of **Appendix A**.

Suitable habitat for the Santa Cruz kangaroo rat (*Dipodomys venustus venustus*), San Francisco dusky-footed woodrat (SFDW, *Neotoma fuscipes annectens*), Mount Hermon June beetle (MHJB, *Polyphylla barbata*), Cooper's hawk (*Accipiter cooperii*), as well as raptors and other nesting avian species was identified within the survey area. For a detailed description of each please refer to the Biological Resources Report (**Appendix A**).

Special-Status Plant Species

The CDFW requires that focused rare plant surveys be conducted approximately every two to three years to determine presence or absence. Although there is only a low potential for other special-status plant species to occur within the survey areas, the discussion below includes plant species whose preferred habitat types occur within the survey areas. All other species within the table are assumed "not present" or "unlikely to occur" within the survey areas for the species-specific reasons presented in *Appendix C* of **Appendix A**.

The Biological Resources Report identifies the presence of the following special-status plant species; silverleaf manzanita, Ben Lomond spineflower (*Chorizanthe pungens* var. *hartwegiana*, federally Endangered and 1B), and Ben Lomond buckwheat (*Eriogonum nudum var. decurrens*, 1B). For a detailed description of each please refer to the Biological Resources Report (**Appendix A**).

4.4.4 Sensitive Habitats

CDFW Sensitive Natural Communities

Silverleaf manzanita chaparral is listed as a sensitive habitat on the CDFW *Natural Communities List* (CDFW, 2019). This vegetation type occurs within the Lewis tank survey area and provides suitable habitat for several special-status plant and wildlife species (**Figure 6b**).

[5] The USGS quadrangles in which published CNDDB data was searched included Calaveras, Cupertino, La Costa Valley, Milpitas, Mountain View, Newark, Niles, San Jose East, and San Jose West.

Suitable Habitat for Mount Hermon June Beetle

DD&A's field investigation, conducted on December 14, 2018, identified suitable habitat for MHJB at the Lewis Tank project site. As identified above, two vegetation types were observed within the Lewis tank survey area: silverleaf manzanita chaparral and ruderal/disturbed (**Figure 6b**). Descriptions of these habitats are presented above. Zayante soils, present within both habitat types, represents suitable habitat for MHJB. While still considered suitable, the areas within and immediately surrounding the fence line are relatively degraded due to the dominance of non-native invasive plant species and disturbance attributed to the operations of the tank site.

4.4.5 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 US Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
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?	☐	☐	☐	☒

4.4.6 Explanation

a) **Less Than Significant Impact with Mitigation Incorporated**. Several special-status plant and wildlife species have the potential to occur or were documented to occur within the survey area as defined in the Biological Resources Report. (6)

Special Status Wildlife Species

Santa Cruz Kangaroo Rat

Suitable habitat for this species is present within the sandy loam soils and chaparral at the Lewis tank survey area. If present, this species could be impacted by the project through direct mortality, noise disturbance, habitat modification, and nest destruction. These impacts are considered significant and can be reduced to less than significant with the implementation of Mitigation Measure BIO 1.

Mitigation

MM BIO 1. The District shall ensure that a qualified biologist conducts an education program for all persons employed on the project prior to performing construction activities. Instruction shall consist of a presentation by the qualified biologist that includes a discussion of the biology and general behavior of any special-status species that may be in the area, how they may be encountered within the work area, and procedures to follow when they are encountered. The status of ESA/CESA-listed species including legal protection, penalties for violations and project-specific protective management measures shall be discussed. The District shall prepare and distribute wallet-sized cards or a factsheet handout containing this information for workers to carry on-site. Upon completion of the program, employees shall sign an affidavit stating they attended the program and understand all protection measures.

San Francisco Dusky-Footed Woodrat

The SFDW is listed on the CDFW's list of species of special concern. This species is found in heavy chaparral, hardwood, conifer, and mixed forests, typically in densely wooded areas with heavy undergrowth riparian woodlands. Nests for this species were observed in the vegetated portions of the survey area at all three tank sites. If present, this species could be impacted by the project through direct mortality, noise disturbance, habitat modification, and nest destruction. These impacts are considered significant and can be reduced to less than significant with the implementation of Mitigation Measures BIO 1 through BIO 4.

Mitigation

MM BIO 2. A qualified biologist will conduct preconstruction surveys of all ground disturbance areas to determine if SFDW are present prior to the start of construction. The biologist will conduct these surveys no more than 2 weeks prior to the beginning of construction. If SFDW nests are found, nests shall be mapped/flagged and documented in pre-construction report.

MM BIO 3. In the event that a SFDW nest is found, and assuming the nest is of the SFDW sub-species, one of the following measures will be implemented. These measures are listed in order of priority, where the first measure is the preferred measure to be implemented as it provides the least amount of impact to the woodrat. If the first measure cannot be implemented due to extenuating site conditions, the second shall be implemented and so forth down the list.

1. The development will be rerouted/re-sited if possible, to avoid the woodrat nest by at least 50 feet.
2. Safety and/or silt fencing will be erected around all nests within 25 feet of the grading and construction activities to avoid impacts during site work.
3. In the event that the project footprint must go directly through a nest, the District shall dismantle the nest and replace the materials outside of the project impact area. Nests shall be moved in the early morning during the non-breeding season (October through February), if possible.

MM BIO 4. A biological monitor shall be on site for all vegetation removal and initial ground disturbing activities. Following ground disturbance, the biological monitor shall train a construction crew-member to act as the biological monitor for the remainder of the construction.

Raptors and Other Migratory Bird Species

Raptors and their nests are protected under Fish and Game Code. While the life histories of these species vary, overlapping nesting and foraging similarities (approximately February through August) allow for their concurrent discussion. Most raptors are breeding residents throughout most of the wooded portions of the state. Open wetland and ruderal habitat can often be used for hunting. Breeding occurs February through August, with peak activity May through July. Prey for these species includes small birds, small mammals, and some reptiles and amphibians. Many raptor species hunt in open wetlands and habitat edges. Various common raptor species (such as red-tailed hawk (*Buteo jamaicensis)*, red-shouldered hawk (*Buteo lineatus)*, American kestrel (*Falco sparverius)*, and turkey vulture (*Cathartes aura*) and special-status raptor species (such as white-tailed kite and northern harrier) have the potential to forage and nest within the survey areas of the Kaski and Madrone tanks and adjacent to the survey area of Lewis tank. If present, these species could be impacted by the project through direct mortality, noise disturbance, habitat modification, and nest destruction. These impacts are considered significant and can be reduced to less than significant with the implementation of Mitigation Measures BIO 1 and BIO 5.

Mitigation

MM BIO 5. If equipment staging, site preparation, grading, excavation or other Project-related construction work is scheduled during the nesting season of protected raptors and other avian species, a qualified biologist shall conduct two surveys for active nests within 14 days prior to the beginning of Project construction. The final survey shall be conducted within 48 hours prior to construction. Surveys shall be conducted in all suitable habitat located at Project work sites, in staging, storage and soil stockpile areas. Nesting seasons are typically defined as March 15 to August 30 for small bird species such as passerines and February 15 to September 15 for other raptors. The minimum survey radii surrounding the work area shall be 300 feet. If an active nest is found during surveys, the qualified biologist shall designate a protected area (while occupied) during Project construction by demarking a "No Work Zone" around each nest site. The qualified biologist shall monitor the behavior of the birds (adults and young, when present) at the nest site to ensure that they are not disturbed by Project construction work. Nest monitoring shall continue during construction until the young have fully fledged (have completely left the nest site and are no longer being fed by the parents), as determined by the qualified biologist.

Mount Hermon June Beetle (MHJB)

MHJB is a federally Endangered species under ESA. This species is restricted to the Zayante sandhills habitat of the Ben Lomond-Mount Hermon-Scotts Valley area. MHJB feeds as a fossorial larva on plant roots and associated mycorrhizae and then emerges as an adult in late spring and early summer to mate. MHJB occurs in areas with Zayante soils that feature a variety of vegetation. While not always present, silver-leaf manzanita is often an indicator of suitable habitat. Other vegetation types that may provide suitable habitat include but are not limited to sand parkland, ponderosa pine forest, as well as areas that have been landscaped and feature ornamental vegetation.

Approximately 0.76-acre (33,465.08 square feet [ft^2]) of suitable MHJB habitat exists within the Lewis tank survey area. Approximately 0.17-acre (7,262.98 ft^2) of this habitat will be permanently impacted[6] by the tank replacement and approximately 0.16-acre (7,061.70 ft^2) of this habitat will be temporarily[7] impacted by the temporary tanks/staging/other construction activities.

These impacts to MHJB habitat are considered "take" under ESA and would be significant impacts under CEQA. These significant impacts can be reduced to less than significant with the implementation of Mitigation Measure BIO 6.

Mitigation

MM BIO 6. The District will implement all Avoidance and Minimization Measures and Restoration Measures as detailed in the attached *Emergency Endangered Species Act Consultation for the San Lorenzo Valley Water District Lewis Tank Site* (**Appendix A**).

Special -Status Plant Species

Three special-status plant species, silverleaf manzanita, Ben Lomond spineflower, and Ben Lomond buckwheat, were identified during focused botanical surveys at the Lewis Tank site (**Figure 6c**). Construction activities, including grading and vegetation removal, could impact these special-status plants species, these impacts would be considered significant. These significant impacts can be reduced to less than significant with the implementation of Mitigation Measures BIO 1 and BIO 6.

b) **Less Than Significant Impact with Mitigation Incorporated**. The Biological Resources Report identifies two sensitive habitats at the Lewis tank site: silverleaf manzanita chaparral, a sensitive habitat on the CDFW Natural Communities List (CDFW 2019), and suitable habitat for MHJB. Construction activities, including grading and vegetation removal, could result in significant impacts to these sensitive habitats. These significant impacts can be reduced to less than significant with the implementation of Mitigation Measures BIO 1 and BIO 6.

c) **No Impact**. Based on the results of the Biological Resources Report, no state or federally protected wetlands are expected to occur on any of the tank sites. Therefore, the project would not impact or have a substantial adverse effect on state or federally protected wetlands.

d) **Less Than Significant Impact**. Project activities are expected to temporarily impact wildlife movement. Noise disturbance associated with construction activities could cause species that commonly use habitats surrounding the project site to, at least temporarily, avoid these habitats

[6] Due to soil disturbance and compactions all areas within the existing fence line will be permanently impacted.
[7] Areas outside of the existing fence line will be restored, therefore impacts are considered temporary.

during construction. These effects would be temporary, and once construction activities are complete, wildlife movement conditions return to pre-existing conditions.

e) **Less Than Significant Impact with Mitigation Incorporated**. The proposed project would result in impacts to sensitive habitats, described above, as defined in Chapter 16.32.040 of the Santa Cruz County code. These impacts would be considered significant, the implementation of Mitigation Measure BIO 6 will reduce these impacts to less than significant.

The project plans identify the removal of four (4) trees, two (2) at the Kaski tank site and two (2) at the Madrone tank site. Prior to construction the District will determine if any of the trees planned for removal are considered significant as defined in Chapter 16.34.030 of Santa Cruz County code. If any of the trees planned for removal are determined to be significant, the District will follow the standard conditions for a significant tree removal permit as defined in Santa Cruz County code Chapter 16.34.

f) **No Impact**. The project site is not located within any Habitat Management or Conservation Plan areas, therefore, it will not conflict with such plans.

4.5 CULTURAL RESOURCES

4.5.1 Environmental Setting

The following discussion is based on an archaeological literature search prepared by Holman & Associates (January 22, 2019).[8] On December 19, 2018, Holman & Associates conducted a records search at the Northwest Information Center of the California Historical Resources Information System (CHRIS), affiliated with Sonoma State University located in Rohnert Park (File No. 18-1157). All records of identified archaeological resources within a half mile, and all archaeological resources reports for projects within a quarter mile were reviewed.

The CHRIS database search did not document any no known cultural resources within or adjacent to the project area. No historic resources/or properties are listed on federal, state, or local inventories within or abutting the project footprint. Approximately half of the Lewis Tank location was previously studied by a CDF trained forester and none of the remaining areas were previously investigated. The results of the Lewis Tank survey had negative findings (i.e., no evidence of archaeological resources was found). No additional disturbances are proposed other than the locations already created for the tanks. There is a low potential for Native American and historic-era archaeological deposits and cultural materials.

4.5.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

4.5.3 Explanation

a) **No Impact**. The project sites do not contain any historical structures. As shown in the CHRIS database search, no historic resources/or properties are listed on federal, state, or local inventories within or abutting the project footprint, this includes the tanks themselves, which are not considered a historic resource. As a result, as there are not historic resources within the vicinity of the tank sites the proposed project would not cause a substantial adverse change in the significant of a historic resource. (1, 7)

b) **Less Than Significant Impact with Mitigation Incorporated**. The archaeological study for the project site (Holman & Associates, 2019) concluded that the research conducted for the project did not identify any specific concerns and no additional archaeological study was recommended. While it is unlikely to encounter prehistoric or historic archaeological deposits during project

[8] The archaeological literature search may discuss locations of specific archaeological sites and is confidential. For this reason, it is not included in this Initial Study. Qualified personnel, however, may request a copy of the report from the SLVWD, 13060 Highway 9, Boulder Creek, CA 95006, during normal business hours.

development, the project would conform to the following mitigation measures to further avoid impacts associated with accidental discovery and potential disturbance of buried archaeological resources during construction. (1, 7)

Mitigation

MM CUL-1 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 (Ref: Health and Safety Code 7050.5).

MM CUL-2 If human remains are found at any time, work must be stopped and the County Coroner must be notified immediately. If the Coroner determines that the remains are Native American, the Native American Heritage Commission will be notified as required by law. The Commission will designate a Most Likely Descendant who will be authorized to provide recommendations for management of the Native American human remains. (Ref: California Public Resources Code Section 5097.98; and Health and Safety Code Section 7050.5).

c) **Less Than Significant Impact with Mitigation Incorporated**. Though unlikely, human remains could be encountered during construction activities. Mitigation measures CUL-1 and CUL-2 are identified above to avoid impacts associated with disturbance to human remains and reduce this impact to a less than significant level. (1, 7)

4.6 ENERGY

4.6.1 Environmental Setting

Pacific Gas and Electric Company (PG&E) is the Santa Cruz County energy utility, providing both natural gas and electricity for residential, commercial, industrial, and municipal uses. Beginning in 2018, electrical energy is also offered by Monterey Bay Community Power (MBCP) using the community choice energy model provided for in the Public Utilities Code. PG&E would continue to provide transmission and distribution services.

PG&E generates or buys electricity from hydroelectric, nuclear, renewable, natural gas, and coal facilities. In 2017, natural gas facilities provided 20 percent of PG&E's electricity delivered to retail customers; nuclear plants provided 27 percent; hydroelectric operations provided 18 percent; renewable energy facilities including solar, geothermal, and biomass provided 33 percent; and two percent was unspecified.[9] MBCP intends to provide electricity with a higher renewable and carbon-free content compared to PG&E at competitive rates.

4.6.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

4.6.3 Explanation

a) **Less Than Significant Impact**. Since the proposed project consists of replacement of water tanks, energy use consumed by the project would be consistent with the previous usage of the existing water tanks. The replacement system would only consist of electricity consumption and no natural gas usage is proposed. Operation of the project would consume energy primarily for operation of the pumps, SCADA system (i.e., operational controls), and lighting at the Lewis tank.

The project would not result in an increase in traffic to/from the site since traffic for tank maintenance would be consistent with the existing use. Therefore, implementation of the proposed project would not result in a substantial increase on transportation-related energy use.

The anticipated construction schedule assumes that the project would be built out over a period of approximately six months. The construction phase would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., excavation, and grading), and the actual construction of the tanks. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for these tasks. The construction energy use has not been determined

[9] PG&E, Delivering low-emission energy. Accessed September 19, 2018. Available at: https://www.pge.com/en_US/about-pge/environment/what-we-are-doing/clean-energy-solutions/clean-energy-solutions.page

at this time. However, the project would not cause inefficient, wasteful, or unnecessary consumption of energy as the construction schedule and process is already designed to be efficient in order to avoid excess monetary costs. That is because equipment and fuel are not typically used wastefully on the site due to the added expenses associated with renting, maintaining, and fueling the equipment. Hand tools would be used when possible in order to avoid use of heavy machinery. Furthermore, energy use required to complete construction would be limited and short-term.

Based on the discussion above, the project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.

b) **Less Than Significant Impact**. The construction and operation of the proposed project would have a less than significant impact due to energy usage and efficiency and, thus, would not conflict with local or state plans for energy efficiency. Furthermore, design of the proposed water tanks would use minimal energy (i.e., no natural gas and minimal electricity). The proposed water tanks would also be required to build to California Building Code standards, Title 24 energy efficiency standards (or subsequently adopted standards during the construction term), and CALGreen code, which includes design provisions to minimize wasteful energy consumption, thereby improving the efficiency of the overall project. As a result, the project would comply with existing State energy standards and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.7 GEOLOGY AND SOILS

4.7.1 Environmental Setting

A geotechnical investigation was completed for the proposed tank site by Pacific Crest Engineering, Inc. (December 10, 2018). This investigation included a site reconnaissance, review of published maps, four test borings, laboratory testing of the soil borings, and engineering analysis to establish general design criteria. The study is contained in **Appendix B**.

4.7.2 Surface Conditions

The project includes three distinct tank sites, Kaski, Madrone, and Lewis, and each site contains existing redwood tanks (for more information on existing infrastructure please refer to Section 1.3 Project Description). The surface geologic conditions of each site are summarized below:

- The Kaski site sits at an elevation of approximately 1,290 feet above mean sea level. The site is located on a level to gently sloping pad that has been graded and cut on the east side with fill existing on the west side of the site. Natural slopes above and below the site range in inclination between 15 and 25 degrees. The on-site soils are three to five feet of silty clay over siltstone bedrock. The area is mapped as Monterey Formation, deposits are described as "medium- to thick-bedrock and laminated olive gray to light gray semisilliceous organic mudstone and sandy siltstone and includes a few thick dolomite interbeds."
- The Madrone tank site is located at an elevation approximately 1,290 feet above mean sea level. The site sits near a ridgetop and is located on a level graded pad. Previous grading appears to consist of minor cutting on the east side of the ridgetop and filling on the west and north side of the tank. The ridge slopes away from the site to the north, west, and south at approximately a 3:1 slope (horizontal:vertical). The on-site soils are 0 to 6 feet of silty sand over sandstone bedrock. The area is mapped as Butano Formation – upper sandstone member, deposits are described as "thin bedded to very thick bedded medium-gray, fine to medium grained arkosic sandstone containing think interbeds of medium gray siltstone."
- The Lewis tank site sits at an elevation of approximately 2,000 feet above mean sea level. The tank site was cut into a gently south and east slope with level pads graded for the existing tank site and water treatment improvements. Past grading appears to consist of maximum one to two-foot cuts and fills in order to accommodate site improvements. The on-site soils are six to eight feet of loose sand over sandstone bedrock. The area is mapped as Santa Margarita Sandstone, deposits are described as "very thick bedded to massive thickly cross-bedded yellowish-gray to white friable granular medium – to fine-grained arkosic sandstone; locally calcareous and locally bituminous."

Observations during the field investigation were consistent with mapped bedrock descriptions. Furthermore, no features indicative of large or moderate scale landsliding were observed in the immediate vicinity of each site during the field investigation.

4.7.3 Subsurface Conditions

Four test borings were drilled 10 to 12 feet below existing grade. A previous geotechnical investigation was performed for the three sites by Haro Kasunich & Associates (HKA) (Project SC10325, dated 9/27/12). HKA drilled eight borings spread over the three tank sites to depths of 26.5 feet below ground surface. The results of the test borings at each site are provided in **Appendix B** and outlined below:

- The Kaski site is underlain with about 3.5-feet of fill with native soil and Monterey Formation Bedrock underneath. The fill is very stiff in density and consists of sandy lean clay with scattered weathered siltstone clasts up to 0.5-inches in diameter. Native Monterey Formation consistent of severely to completed weathered siltstone bedrock exists underneath the fill. The Monterey Formation is generally soft to moderately hard. Similar siltstone bedrock was explored to a maximum depth of 21.5-feet in the HKA borings.
- The Madrone site consists of native, moderately weathered, very soft to moderately hard Butano Sandstone. No fill was encountered at this location, however, the HKA borings found up to 5 feet of loose and compressed fill and native soils.
- The Lewis site consists of four to six feet of colluvium overlying native Santa Margarita Formation bedrock, one boring location has four feet of fill material. Both fill and native materials consisted of very soft sandstone bedrock, with the upper few feet weathered to a sandy silt or silty sand.

Groundwater was not encountered in any of the test borings or the HKA (2012) borings and no evidence of shallow ground water was observed at the site. Water observed at the Kaski and Lewis sites is associated with long-term leakage from the tanks.

The project site is located within the seismically-active San Francisco Bay Area, and several major faults are located within the tank sites and are outlined in **Table 2** below.

Table 2
Distance and Direction of Significant Faults from Proposed Project Locations

	Zayante	Butano	San Andres	Sargeant	Lexington
Kaski	0.5 miles northeast	4 miles northeast	5.5 miles northeast	6 miles northeast	6 miles northeast
Madrone	500 feet northeast	3.5 miles northeast	5 miles northeast	5.5 miles northeast	5.5 miles northeast
Lewis	0.75 miles northeast	4.5 miles northeast	6 miles northeast	6.5 miles northeast	6.5 miles northeast

4.7.4 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
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 geological feature?	☐	☐	☐	☒

4.7.5 Explanation

ai) **Less than Significant Impact**. The project site is located within a seismically active region, however, the site is not mapped within an Alquist-Priolo Earthquake Fault Zone. The geotechnical investigation did not perform a specific investigation for the presence of active faults at the project sites. However, the Santa Cruz County GIS Hazard Maps does not show a fault hazard zone within the project sites. Since the nearest known active, or potentially active fault trace is mapped approximately 0.1 miles from the site, the potential for fault rapture at the site is low. (1, 8, 10)

aii) **Less than Significant Impact**. Due to its location in a seismically active region, the water tanks would likely be subject to strong seismic ground shaking during their design life in the event of a major earthquake on any of the region's active faults. This could pose a risk to proposed water tanks. Seismic impacts would be minimized by incorporating the recommendations outlined in the geotechnical report into the project design and construction as well as standard engineering and construction techniques in compliance with the requirements of the California and Uniform Building Codes for Seismic Zone 4. (1, 8)

aiii) **Less Than Significant Impact**. As described above, the project site may be subject to strong ground shaking in the event of a major earthquake. Although the geotechnical report did not include a quantitative liquefaction analysis, the Santa Cruz County GIS Hazard Maps do not show the project within a liquefaction hazard zone. The results of the geotechnical analysis concluded that there is low potential for liquefaction, and consequently low potential for lateral spreading. (1, 8, 10)

aiv) **Less Than Significant Impact**. No landslide deposits are mapped within the project sites. Furthermore, the project sites are located some distance from mapped landslide deposits within Santa Cruz County. As a result, the geotechnical analysis determined there is a low potential for landsliding to occur. (1, 8)

b) **Less Than Significant Impact**. Development of the project would require total grading (cut and fill) in the amount of approximately 250 cubic yards at the Lewis site, 200 cubic yards at the Kaski site, and 40 cubic yards at the Madrone site, which could result in a temporary increase in erosion. The project would implement the standard measures identified in Section 4.10 Hydrology and Water Quality of this Initial Study to minimize erosion. Furthermore, impacts due to erosion or the loss of topsoil would be minimized by incorporating the recommendations outlined in the geotechnical report into the project design and construction. (1, 8)

c) **Less Than Significant Impact**. Per the results of the geotechnical report, the potential for liquefaction and liquefaction-induced settlement at the site is low, as is the potential for lateral spreading. (1, 8)

d) **Less Than Significant Impact**. Site soils have low expansion potential, furthermore potential impacts associated with expansive soils would be addressed through the compliance with the recommendations outlined in the geotechnical report. (1, 8)

e) **No Impact**. The project does not include any septic systems. (1)

f) **No Impact**. There are no known paleontological resources or unique geologic features on the project site. The project site is not listed within an area identified as containing paleontological resources nor is it located in close proximity to any known paleontological resources. Much of the site was previously disturbed during grading for the existing water tanks, no resources were documented as being unearthed at that time. The project would not impact any paleontological resources, since none are known in the project area. (1, 7)

4.8 GREENHOUSE GAS EMISSIONS

4.8.1 Environmental Setting

Various gases in the earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, the radiation that otherwise would have escaped back into space is retained, resulting in a warming of the atmosphere known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect, or climate change, are carbon dioxide (CO_2), methane (CH_4), O_3, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for enhancing the greenhouse effect. In California, the transportation sector is the largest emitter of GHGs.

4.8.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

4.8.3 Explanation

a) **Less than Significant Impact**. The project is located in the NCCAB, where air quality is regulated by MBARD. Neither the State, MBARD, nor Santa Cruz County have adopted GHG emissions thresholds or a GHG emissions reduction plan that would apply to the project. However, it is important to note that other air districts within the State of California have recently adopted recommended CEQA significance thresholds for GHG emissions. For instance, on March 28, 2012 the San Luis Obispo Air Pollution Control District (SLOAPCD) approved thresholds of significance for the evaluation of project-related increases of GHG emissions. Given that the MBARD has not yet adopted recommended GHG significance thresholds, the above thresholds were relied upon for evaluation of the proposed project.

Implementation of the proposed project would contribute GHG emissions that are associated with global climate change. GHG emissions attributable to future development would be primarily associated with increases of CO_2 and, to a lesser extent, other GHG pollutants, such as CH_4 and N_2O. Sources of GHG emissions include area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, and the generation of solid waste.

The proposed project would not generate any new sources of stationary GHG emissions. The new water tank would not change the level of use as compared to the existing conditions. The project

would generate temporary construction-related GHG emissions, with most of the emissions generated during the grading phase of construction, which would be minimal and is not anticipated to generate GHG emissions in access of the above thresholds. Mobile sources are anticipated to generate the majority of GHG emissions during project operation. However, since the project is estimated to only generate minimal trips for maintenance (see **Section 4.15 Traffic/Transportation**) this is not considered a significant impact. As such, the project would not generate substantial new or altered sources of GHGs emissions. Any potential impacts from GHG generation during construction would be short-term and temporary. In addition, the proposed project would be consistent with current zoning for the property. As a result, the project is not anticipated to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. (1, 9)

b) **Less than Significant Impact**. Neither the State, MBARD, nor Santa Cruz County have adopted GHG emissions thresholds or a GHG emissions reduction plan that would apply to the project. But as shown above, the project would not exceed acceptable thresholds. Also, the project would be required to include energy and water-efficient components that meet applicable State energy performance standards. The proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs as described above. This represents a less than significant impact. (1, 9)

4.9 HAZARDS AND HAZARDOUS MATERIALS

4.9.1 Environmental Setting

Hazardous materials, as defined by the California Code of Regulations, are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. Hazardous materials and waste can result in public health hazards if improperly handled, released into the soil or groundwater, or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer.

The State of California uses databases such as EnviroStor, GeoTracker, and Cortese to map the location of hazardous waste sites including sites that have been remediated, sites currently undergoing remediation, and sites that require cleanup. Based on a search of the above databases, no hazardous materials contamination has been documented within the project site.

Four airports are located within the County (one public airport and three private airports): the public Watsonville Municipal Airport, the private Bonny Doon Village Airport, the private Las Trancas Airport, and the private Monterey Bay Academy Airport. The project site is not in the immediate vicinity of any of these airports and is not located within an airport land use plan. The nearest airport to the project site is the Bonny Doon Village Airport, located over 4 miles southwest of the project site.

The California Department of Forestry and Fire Protection (CalFire) prepares maps Fire Hazard Severity Zones, which are used to develop recommendations for local land use agencies and for general planning purposes. CalFire categorizes parcels categories of Very High, High, and Moderate, all project sites are located in Moderate fire zones as delineated by CalFire.

4.9.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
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 or excessive noise 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	☐	☐	☒	☐

4.9.3 Explanation

a-b) **Less than Significant Impact**. Once operational, the project would not include the transport, use, or disposal of hazardous materials, and as such would not result in accidental release of hazardous materials to the environment. Construction activities would, however, require the temporary use of hazardous substances, such as fuel for construction equipment, oil, solvents, or paints. Removal and disposal of hazardous materials from the project site would be conducted by an appropriately licensed contractor. Any handling, transporting, use, or disposal would comply with applicable laws, regulations, policies, and programs set forth by various federal, state, and local agencies. Required compliance with applicable hazardous material laws and regulations would ensure that construction-related hazardous material use would not result in significant impacts. These impacts would be temporary in nature and would be considered a less than significant impact.

In addition, Aero-Environmental Consulting conducted an assessment of asbestos- and lead-containing materials at the Lewis site on July 21, 2019, and prepared a Limited Asbestos Inspection Report for Pre-Demolition and Renovation Purposes (see **Appendix C**). The results of this study identified Asbestos-Containing Materials (ACM) in the water treatment building proposed to be renovated. No lead-based paint was detected at the site. In order to ensure potential impacts are less than significant, the proposed project would be required to adhere to the recommendations and regulations listed in the Inspection Report as well as all hazardous material laws and regulations. This would ensure that no hazardous materials are released during construction. Compliance with these requirements would ensure that potential hazards associated with the transport, use, or disposal and/or release hazardous materials would be less-than-significant. (1, 2)

c) **No Impact**. The project site is not located within one-quarter mile of an existing or proposed school. See also b) above. (1)

d) **No Impact**. The project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. (1)

e) **No Impact**. The project site is not located within two miles of any airports or located within an airport land use plan. (1)

f) **No Impact**. The proposed project would not interfere with any adopted emergency or evacuation plans as it is not located within the vicinity of any of these plans. The project would not create any barriers to emergency or other vehicle movement in the area and would be designed to incorporate all Fire Code requirements. (1)

g) **Less than Significant Impact**. The project would not expose people or structures to a significant risk from wildland fires. On the contrary, the water tanks would provide a fire suppression source for existing residential development in the area. (1)

4.10 HYDROLOGY AND WATER QUALITY

4.10.1 Environmental Setting

The Kaski and Madrone tank sites sit at 1,290 feet above mean sea level and the Lewis site is 2,000 feet above sea level. The tank sites are located within the Lompico watershed and the San Lorenzo basin. Storm runoff from the site currently drains as sheet flow across the site. The project sites do not contain any natural drainages or waterways.

As described above, the site would be completely covered by impervious surface within the fence line. As required by the site topography, drainage swales would be installed outside of the fence to convey surface runoff to percolation areas. In addition, a catch basin would be located adjacent to each tank to collect any water from the tank overflow. A tank drain connection with an isolation valve would also be provided near the catch basin to allow SLVWD to drain the tank if needed. There would be drainpipes exiting the catch basins and routed underground to daylight downhill of the tank sites. Drainpipes would discharge near the discharge locations of the existing drain pipes or as determined to be appropriate.

Flood Insurance Rate Maps issued by the Federal Emergency Management Agency (FEMA) indicate that the project site is located within Zone X (unshaded) – Area of Minimal Flood Hazard. Zone X (unshaded) is defined as minimal flood hazard, these are areas outside the Special Flood Hazard Area and higher than the elevation of the 0.2-percent-annual-chance flood.

Santa Cruz County is required to comply with the National Clean Water Act regulations regarding the reduction of non-point source pollutants, as mandated by the National Pollutant Discharge Elimination System (NPDES) and regulated by the Regional Water Quality Control Board (RWQCB). The current NPDES program requires construction activities disturbing greater than one acre to obtain an NPDES storm water permit. Since the project proposes to cumulatively disturb more than one acre of land, it is subject to NPDES requirements.

4.10.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
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.	☐	☐	☒	☐

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY. Would the project:				
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
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?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

4.10.3 Explanation

a) **Less Than Significant Impact**. Temporary soil disturbance would occur during construction of the proposed project as a result of earth-moving activities, such as site preparation, grading, and vegetation removal. If not managed properly, disturbed soils would be susceptible to high rates of erosion from wind and rain, resulting in sediment transport via stormwater runoff from the project site. Moreover, the project would increase the extent of impervious surfaces on the site, thereby potentially generating additional sources of polluted runoff.

The proposed project would potentially disturb more than one acre of soil. As a result, the project would be required to obtain coverage under the Regional Water Quality Control Board (RWQCB) National Pollutant Discharge Elimination System (NPDES) General Storm Water Permit. The permit would require a Storm Water Pollution Prevention Plan (SWPPP) which contains BMPs for construction and post construction runoff. BMPs that are typically specified within the SWPPP may include, but would not be limited to the following:

- The use of sandbags, straw bales, and temporary de-silting basins during project grading and construction during the rainy season to prevent discharge of sediment-laden runoff into storm water facilities.
- Revegetation as soon as practicable after completion of grading to reduce sediment transport during storms.
- Installation of straw bales, wattles, or silt fencing at the base of bare slopes before the onset of the rainy season (October 15th through April 15th).
- Installation of straw bales, wattles, or silt fencing at the project perimeter and in front of storm drains before the onset of the rainy season (October 15th through April 15th).

Compliance with existing laws and regulations would limit erosion, which would reduce temporary impacts to surface water quality. As such, the proposed project is not anticipated to violate water quality standards or contribute additional sources of polluted runoff. Construction impacts to water quality would be less than significant. Please refer to Response c, below, for more information. (1, 9)

b) **Less Than Significant Impact**. The proposed project would increase the impervious surface at all the tank locations as the entire project area would be covered with impervious surface within the fence-line. In addition, the current redwood tanks leak and the proposed improvements would ameliorate the leak issues. As a result, installation of the upgraded water tanks would reduce the amount of water infiltrating the underlying soil. However, as explained in 4.7 Geology and Soils the project site is underlaid with bedrock, so it is unlikely that much water from the sites are contributing to groundwater supply. Furthermore, storm water would be directed into a man-made swale, which would account for some recharge to the underlying basin. Based on the overall footprint of the project sites and minimal increase in impervious surface, the project is not expected to result in a substantial reduction in groundwater recharge. The proposed tank improvements would not be substantial enough to deplete or otherwise impact groundwater supplies or recharge. (1, 8)

ci) **Less Than Significant Impact**. Construction of the project would require grading activities that could result in a temporary increase in erosion affecting the quality of storm water runoff. This increase in erosion is expected to be minimal, due to the small size and flatness of the site. As stated above, there are no watercourses in close proximity to the project sites. Nevertheless, as stated above in Response a, the project would be required to comply with a RWQCB NPDES General Storm Water Permit including implementation of standard BMPs to provide erosion control. In addition, the project would increase impervious surfaces on the project site and somewhat alter the drainage pattern on the sites. This would be mitigated with implementation of the regulations and standards above. In conclusion, the project would not substantially alter existing drainage patterns or cause alteration of streams or rivers nor would the project result in substantial erosion or siltation on or off site by complying with the RWQCB NPDES General Storm Water Permit. (1)

cii) **Less Than Significant Impact**. The project would increase the amount of impervious area on the project site compared to existing conditions. As stated above the project would be required to comply with the RWQCB NPDES General Storm Water Permit that would require implementation of BMPs. In addition, the project proposes new drainage systems for the tank sites to manage runoff from the sites. Proposed runoff treatment measures include drainage swales (see **Figures 5a-5c**). (1)

ciii) **Less Than Significant Impact**. The project does not propose to connect to an existing stormwater drainage system but treat water in man-made drainage swales surrounding the project site (see **Figures 5a-5c**). A catch basin would connect to drainpipes that would discharge near the discharge locations of the existing drainpipes, therefore drainage would be similar to existing conditions. The project is not expected to contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems or result in substantial additional sources of polluted runoff. Surface runoff from the proposed project site is not expected to contain large quantities of pollutants. Runoff from the site could include oil, grease, and trace metals from maintenance vehicles that would occasionally visit the site. The project would implement a stormwater control plan to treat runoff during construction. See also ci) and cii) above. (1)

civ) **Less Than Significant Impact**. The project site is located outside the 100-year floodplain and would not significantly impede or redirect flood flows. (1, 10)

d) **No Impact**. The project site is not located in an area subject to significant seiche or tsunami. The County of Santa Cruz, Tsunami Coastal Inundation Map does not identify the project site in a tsunami inundation zone. No impacts would occur. (1, 10)

e) **Less Than Significant Impact**. As outlined above, the proposed project would be required to comply with comply with standard BMPs during construction. Based on the measures required by the County, the proposed project would not conflict with or obstruction the implementation of a water quality control plan or sustainable groundwater management plan. (1)

4.11 LAND USE AND PLANNING

4.11.1 Environmental Setting

Santa Cruz County General Plan

The project site is located in a rural residential area within the County of Santa Cruz. The 1994 Santa Cruz County General Plan is the planning document that guides development within the County boundaries. The Kaski and Lewis project sites are designated as Mountain Residential (R-M), which allows very low density residential development (10-40 net developable acres per dwelling unit), the Madrone site is designated as Rural Residential (R-R), which allows low density residential development (2.5-20 net developable acres per unit).

By state law, building and zoning ordinances do not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of drinking water (California Government Code Section 53091 (d) and (e)).

4.11.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

4.11.3 Explanation

a) **No Impact**. The proposed water tanks are located on SLVWD property and would not physically divide an established community. (1)

b) **Less than Significant Impact**. The project is exempt from County building and zoning ordinances under California Code Section 53091, since the project relates exclusively to the storage of water. As a result, the project is consistent with the County's General Plan land use designation for the site and policies calling for the provision of water supplies to serve the County's population. (1, 9)

4.12 MINERAL RESOURCES

4.12.1 Environmental Setting

The project area does not contain any known or designated mineral resources.

4.12.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

4.12.3 Explanation

a-b) **No Impact**. The project would not impact mineral resources, since none are located on or near the project site[10]. (1)

[10] California Department of Conservation, SMARA Mineral Land Classification Project. https://www.conservation.ca.gov/cgs/minerals/mineral-land-classification-smara

4.13 NOISE

4.13.1 Environmental Setting

The land use policies in the 1994 Santa Cruz County General Plan identify noise standards to avoid conflicts between noise-sensitive uses and noise source contributors. The water tank is proposed in a quiet area in a low-density community. The only significant source of noise in the project area is traffic along nearby roads. Sensitive receptors in the vicinity of the project sites consist of existing adjacent residences. The closest residence is 150 feet southwest of the Madrone site; other adjacent residences are located 220 feet northwest of the Lewis site and 170 feet southeast of the Kaski site.

Policy 6.9.1 of the County General Plan identifies noise and land use compatibility guidelines. The noise guidelines generally utilize a limit of 60 decibels L_{dn} (day/night average sound level[11]) at residential properties.

4.13.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
NOISE. Would the project result in				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?	☐	☒	☐	☐
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?	☐	☐	☐	☒

4.13.3 Explanation

a) **Less than Significant Impact with Mitigation Incorporated**. The project would generate noise during project construction and from truck trips associated with project operation. Each of these noise sources are examined in further detail below. With incorporation of mitigation measures outlined below the project would not generate substantial temporary or permanent increases in ambient noise levels in the vicinity of the project in excess of standards established in local plans, noise ordinances, or applicable standards of other agencies.

Construction of the project would result in short-term noise increases in the project vicinity. Construction activities generate considerable noise, especially during earth-moving activities when heavy equipment is used. The construction of the project would involve demolition, excavation,

[11] The Ldn is the average equivalent sound level over a 24 hour period, with a penalty added for noise during the nighttime hours of 22:00 to 07:00. During the nighttime period 10 dB is added to reflect the impact of the noise.

site preparation, grading, building construction, paving, and architectural coating. The hauling of excavated materials and construction materials would generate truck trips and associated noise along local roadways. Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Construction activities would occur over six months. Equipment to be used may include a backhoe, excavator, concrete mixer, and temporary generator. Typical hourly average construction noise levels could be as loud as 75 - 80 decibels at a distance of ±100 feet from the construction area during active construction periods[12]. Construction would be conducted in accordance with the County of Santa Cruz Municipal Code Chapter 8.30, which states "offensive noise"[13] shall not be permitted between the hours of 10:PM and 8:00 AM. Although noise from construction of the project would be temporary and intermittent, it would at times exceed the Santa Cruz County General Plan noise level guideline of 60 L_{dn} at the nearest residences, the closest of which are located just over 150 feet from the proposed improvements. Construction noise represents a significant short-term impact that would be reduced to a less-than-significant level with the following mitigation. (1)

Mitigation

MM N-1 During construction, the SLVWD shall implement the following measures to minimize construction noise impacts:

- Limit construction to 7 AM-7 PM, Monday through Friday.
- Utilize 'quiet' models of air compressors and other stationary noise sources where technology exists;
- Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment;
- Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from adjacent land uses;
- Locate staging areas and construction material areas as far away as possible from adjacent land uses;
- Prohibit all unnecessary idling of internal combustion engines;
- Notify all abutting land uses of the construction schedule in writing; and
- Designate a "disturbance coordinator" (e.g., contractor foreman or authorized representative) who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator

[12] California Department of Transportation, Transportation and Construction Vibration Guidance Manual, September 2013.

[13] "Offensive noise" is defined as any noise which is loud, boisterous, irritating, penetrating, or unusual, or that is unreasonably distracting in any other manner such that it is likely to disturb people of ordinary sensitivities in the vicinity of such noise, and includes, but is not limited to, noise made by an individual alone or by a group of people engaged in any business, meeting, gathering, game, dance, or amusement, or by any appliance, contrivance, device, structure, construction, ride, machine, implement, instrument or vehicle [Santa Cruz County Municipal code, Section 8.30.010 (B)].

would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and would require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.

In addition, operation of the proposed project would generate noise. Although the project would include installation of pumps and other mechanical equipment, these would not generate noise during operation of the project as they would be submersed in the tanks. Furthermore, since the project is replacing existing tanks, the proposed project is not anticipated to result in any additional truck trips beyond that which was already required for the existing use. Thus, there would not be an expected increase in project generated traffic noise.

As a result, with implementation of the mitigation measure outlined above, the proposed project would not generate substantial temporary or permanent increases 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. This is considered a less than significant impact. (1, 9)

b) **No Impact.** Construction of the water tank facilities would not utilize pile driving or any other mechanical equipment that generates ground borne vibration or ground borne noise levels. (1)

c) **No Impact**. The project is not located in vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted. (1)

4.14 POPULATION AND HOUSING

4.14.1 Environmental Setting

The project site is located in a rural residential community in the Santa Cruz Mountains. The most recent census for the County was in 2017, with a population of 275,897 and an estimated 106,318 housing units[14].

A project can induce substantial population growth by: 1) proposing new housing beyond projected or planned development levels, 2) generating demand for housing as a result of new businesses, 3) extending roads or other infrastructure to previously undeveloped areas, or 4) removing obstacles to population growth (e.g., expanding capacity of a wastewater treatment plant beyond that necessary to serve planned growth).

4.14.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.14.3 Explanation

a) **No Impact**. The proposed water tank replacement project would be constructed with essentially the same purpose, size, and capacity as the existing facilities and does not involve any expansion of use. As a result, the proposed project would not induce population growth in the area; there is no impact. (1)

b) **No Impact.** The water tank replacement project would be located in generally the same location as the existing tanks and would not displace any housing or people. (1)

[14] United States Census Bureau Website: https://www.census.gov/quickfacts/fact/table/santacruzcountycalifornia/PST045218#. Accessed January 31, 2019.

4.15 PUBLIC SERVICES

4.15.1 Environmental Setting

The project would be operated and maintained by the SLVWD. The Kaski and Madrone tank sites are served by the Zayante Fire Protection District, the Lewis tank site is served by the Ben Lomond Fire Protection District. All sites are served by the Santa Cruz County Sheriff's Department. The project site is not located in the vicinity of any schools or parks.

4.15.2 Environmental Impacts

ENVIRONMENTAL IMPACTS		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:					
a)	Fire protection?	☐	☐	☐	☒
b)	Police protection?	☐	☐	☐	☒
c)	Schools?	☐	☐	☐	☒
d)	Parks?	☐	☐	☐	☒
e)	Other public facilities?	☐	☐	☐	☒

Explanation

a)–e) **No Impact**. The project would replace existing water tank facilities, the project would be unmanned and would not result in additional staff or indirect population growth that would lead to an increased demand for public services including fire, police, school, park, or other public facilities. Funding is available for construction, maintenance, and operation of the replacement tanks and would not adversely impact the SLVWD. (1)

4.16 RECREATION

4.16.1 Environmental Setting

The project is proposed in a rural residential community and there are no parks or other recreational facilities in the immediate project vicinity.

4.16.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

4.16.3 Explanation

a)–b) **No Impact**. The proposed water tank replacements would not increase demands on or otherwise impact recreational facilities; there is no impact. (1)

4.17 TRANSPORTATION AND TRAFFIC

4.17.1 Environmental Setting

The project is proposed at three separate tank locations, Kaski, Lewis, and Madrone. The Kaski tank site is located approximately 750 ft northwest of the terminus of Tromba Road, the Madrone tank site is located approximately 650 ft northwest of the intersection of Madrone Avenue and Whilaway Avenue, and the Lewis tank site is located approximately 1,200 feet southwest of the intersection of Vera Avenue and West Drive. All of these local access roads are single-lane public facilities that provide access for the local mountain community. Regional access is provided to the project sites via Lompico Road and East Zayante Road, which connects to Highway 9 at Felton about eight miles north of Lompico.

4.17.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the project 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?	☐	☐	☐	☒

4.17.3 Explanation

a) **Less than Significant Impact**. Operation of the proposed project is not expected to generate any additional trips. The proposed water tank replacement project would be constructed with the essentially the same purpose, size, and capacity as the existing facilities and does not involve any expansion of use. In addition, the only trips during operation would be for routine maintenance and not in addition to that which is already required at the existing tank sites. The project is not anticipated to generate pedestrian or bicycle traffic or transit usage due to the nature of the project and the isolated location.

Project construction traffic would result in a temporary increase in traffic on the roads leading to the project's site. If necessary, traffic control measures should be implemented when delivery/off-haul trucks and construction equipment are entering and leaving the construction site. No lane closures would be necessary, and all work would occur off of public roadways.

In summary, the proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities based on the results of the traffic analysis. (1)

b) **Less than Significant Impact**. The project would not conflict with an CEQA Guidelines section 15064.3, subdivision (b). See discussion a) above. (1)

c) **Less than Significant Impact**. The project would not substantially increase hazards due to a geometric design feature or incompatible uses. Site access and parking would be provided at the existing driveway to the site. The project is an unmanned facility and would not increase the demand for parking. (1)

d) **No Impact.** The proposed project is not in the vicinity of an emergency access route and would not increase the demand on local roads being an unmanned facility. The project would not result in inadequate emergency access and will be built to all relevant standard building codes. (1)

4.18 TRIBAL CULTURAL RESOURCES

4.18.1 Environmental Setting

California Assembly Bill (AB) 52, in effect since July 2015, provides CEQA protections for tribal cultural resources. All lead agencies approving projects under CEQA are required, if formally requested by a culturally affiliated California Native American Tribe, to consult with such tribe regarding the potential impact of a project on tribal cultural resources before releasing an environmental document. Under California Public Resources Code §21074, tribal cultural resources include site features, places, cultural landscapes, sacred places, or objects that are of cultural value to a tribe and that are eligible for or listed on the California Register of Historical Resources (CRHR) or a local historic register, or that the lead agency has determined to be of significant tribal cultural value.

4.18.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section5024.1, the lead agency shall consider the significance of the resource to a California Native America Tribe.	☐	☐	☒	☐

4.18.3 Explanation

a) **No Impact.** As indicated above in Section 4.5 Cultural Resources the proposed project would not result in any adverse impacts to historical resources within the project area. (1, 7, 9)

b) **Less than Significant Impact**. The National American Heritage Commission (NAHC) review of their Sacred Lands Files did not yield any results for the project site. Furthermore, no tribal cultural resources or Native American resources have been identified to date, and findings of these resources are unlikely. In addition, pursuant Public Resources Code Section 21080.3.1, the Native American Tribes are required to request notification by the District of potential projects, if consultation is requested the District shall provide formal written notification in accordance with to the California Native American tribe or tribes that are traditionally and culturally affiliated with the project area if that tribe(s) has requested notification from the District of proposed projects, the tribe has 30 days of the notification to request consultation, to determine if the project may have a significant effect on a tribal cultural resources.

The District has received a request for notification from the Torres Martinez Desert Cahuilla Indians. A letter soliciting additional information was sent to the Torres Martinez Desert Cahuilla Indians on August 2, 2019. Further, notification was conducted by the District on August 23, 2019, with applicable tribal representatives identified by the NAHC as a result of the sacred lands search. Information in the letter included the project description, a map of the project location, and lead agency contact information. The parties contacted were asked to consider the letter and project information as notification of a proposed project as required under CEQA. On September 23, 2019, a follow up phone call was placed to the contacts that had not responded to the initial consultation letter. The contacts were either left voicemails and given a person of contact to voice their concerns or they had no concerns regarding the proposed project. No Native American tribes that are or have been traditionally culturally affiliated with the project vicinity have requested consultation from the SLVWD. Since the District has not received a request for notification by any Native American tribes and the sacred lands search yielded a negative finding, this is considered a less than significant impact. (1, 7)

4.19 UTILITIES AND SERVICE SYSTEMS

4.19.1 Environmental Setting

In the rural project area, wastewater treatment and disposal services are provided by individual septic systems, although the proposed project would not include these services. Water supply service in the project area is provided by the SLVWD. The storm drainage system in the Boulder Creek area is privately maintained or under the jurisdiction of the County.

4.19.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
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?	☐	☐	☐	☒

4.19.3 Explanation

a) **Less than Significant Impact**. The project consists of the replacement of water tanks and the project would not expand existing water facilities or services. As described in this Initial Study, the project would reduce all significant impacts to a less than significant level with mitigation incorporated into the project.

The project does not include domestic sewage or septic facilities and as a result would not require the construction of expanded wastewater treatment for this use. Non-sewage wastewater such as storm drainage, would be captured on-site in drainage swales constructed around the site. As outlined in Section 4.6 Energy, the project would not utilize natural gas and electrical power would utilize existing PG&E connections, no construction or replacement of lines would be necessary.

The proposed water tank replacement project would be constructed with the essentially the same purpose, size, and capacity as the existing facilities and does not involve any expansion of use. Therefore, the project would not require result in significant impacts due to the construction or relocation of new wastewater treatment, electrical power, natural gas, or telecommunication facilities. (1)

b) **Less than Significant Impact**. The project is a water supply project and consists of installation of replacement water tanks, see a) above. Construction of the water tank project would require some water for dust suppression during construction activities, the amount of water required for watering and construction activities is minor. The project would not be manned and, therefore, would not require water for employee use. The project would be sized to have sufficient water supplies available to serve the project and reasonably foreseeable future development. (1)

c) **No Impact**. The project would not require wastewater treatment services, see a) above. (1)

d-e) **No Impact**. The project would include unmanned water tanks and would not generate or require solid waste services or impact landfills. (1)

4.20 WILDFIRE

4.20.1 Environmental Setting

The County experiences annual cycles of elevated fire danger, with the wildfire season typically extending from roughly May into late October or early November. The project area is served by served by the Santa Cruz County Fire District (SCCFD) in conjunction with CalFire and is within the Zayante Fire Protection District.

The CalFire San Mateo – Santa Cruz Unit, which is the County Fire Department for both San Mateo County and Santa Cruz County, recently developed and adopted the 2016 Strategic Fire Plan for the San Mateo County and Santa Cruz County unit (CalFire 2016). Fire Hazard Severity Zone maps categorizes parcel categories of Very High, High, and Moderate, all project sites are located in Moderate fire hazard severity zones as delineated by CalFire.

4.20.2 Environmental Impacts

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

4.20.3 Explanation

a) **No Impact**. As stated above in Section 4.9 Hazards and Hazardous Materials, the project would not create any barriers to emergency or other vehicle movement as it is not part of vehicular transportation network used by emergency vehicles. The project would not substantially impair an adopted emergency response plan or emergency evacuation plan. (1, 9, 11)

b) **Less Than Significant Impact**. The project would be unmanned and, therefore, would not expose occupants to a significant risk from wildland fire. Furthermore, although the site is located in a

relatively undeveloped area, with natural vegetation, the project would have access to adequate water for fire suppression. Further the project is mapped in an area of moderate fire hazard severity. As a result, the project would have a less than significant impact 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. (1, 2, 11)

c) **Less Than Significant Impact**. For each tank site, a fire storage volume of 60,000 gallons is planned. This corresponds to a fire-flow of 1,000 gallons per minute (gpm) for one hour as required for 0-3,600 square-feet one- and two-family dwellings. (2016 California Fire Code, Appendix B, Table B105.1(1)) The Lompico Water System is within the Zayante Fire Protection District service area. The district Fire Chief was contacted and confirmed that this fire flow is applicable to the system (Schaaf & Wheeler, 2018). As a result, fire suppressions improvements with the project would be built to California Fire Code and sizing was confirmed with the Fire Chief, this is considered a less than significant impact. (1, 11)

d) **Less Than Significant Impact**. See Response b) and c) above. The proposed project would be unmanned and located in a moderate fire hazard severity zone. Furthermore, proposed improvements include fire suppression systems that are in compliance with California Fire Code and were confirmed by the Fire Chief. As a result, the project would result in a less than significant impact due to exposure of people or structures to significant wildfire risks. (1, 2, 11)

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL IMPACTS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

4.21.1 Explanation

a) **Less than Significant Impact with Mitigation Incorporated**. Based on the analysis provided in this Initial Study, the proposed project would not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Mitigation measures are identified for potential impacts of the project on biological and cultural resources to reduce these effects to a less than significant level. (1-11)

b) **Less than Significant Impact with Mitigation Incorporated**. Based on the analysis provided in this Initial Study, the proposed project would not significantly contribute to cumulative impacts, because the proposed water tank replacement project would be constructed with the essentially the same purpose, size, and capacity as the existing facilities and does not involve any expansion of use.

Under CEQA “cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. The proposed project would not result in a cumulatively considerable adverse environmental effect. This Initial Study contains mitigation to ensure that all impacts would be minimized to a less than significant level. The project would have

temporary air quality impacts and GHG emissions that would contribute to the overall regional and global GHG emissions. However, air quality impacts and GHG emissions would not exceed the MBARD's thresholds of significance. In addition, the proposed project would not induce potential population growth beyond existing levels; therefore, the project would not conflict with and/or obstruct the implementation of the MBARD 2012-2015 AQMP, or any other plans to address exceedance of State air quality standards. For these reasons, the project would have a less than significant cumulative impact on the air quality and GHG emissions. (1-11)

c) **Less than Significant Impact**. The proposed project would not cause any adverse effects on human beings. Temporary construction impacts would be temporary in nature and mitigated to a less than significant extent. Furthermore, temporary construction impacts to sensitive receptors would be limited since potential construction-related air quality impacts and GHG emissions would not exceed the MBARD's significance thresholds and compliance with applicable MBARD regulations, including, but not limited to, Rule 402, would minimize potential nuisance impacts to occupants of nearby land uses. In addition, potential impacts due to construction noise would be mitigated to a less than significant level. The project would not have a substantial adverse effect on human beings, either directly or indirectly. (1-11)

Chapter 5 References

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