Sonoma Water

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SONOMA VALLEY COUNTY SANITATION DISTRICT SYSTEM PROTECTION PLAN AT KOHLER & SONOMA CREEK CROSSINGS PROJECT

Draft Initial Study/Proposed Mitigated Negative Declaration

Lead Agency:
Sonoma County Water Agency
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Posted: July 17, 2023
Review: July 18 to August 16, 2023

American Disabilities Act Compliance

This Initial Study and Proposed Mitigated Negative Declaration of Environmental Impact for the Proposed Project was prepared in compliance with requirements under the Americans with Disabilities Act (ADA). The ADA mandates that reasonable accommodations be made to reduce "discrimination on the basis of disability." As such, the Sonoma County Water Agency is committed to ensuring that documents we make publicly available online are accessible to potential users with disabilities, particularly blind or visually impaired users who make use of screen reading technology.

This disclaimer is provided to advise that portions of the document, including the figures, charts, and graphics included in the document, are non-convertible material, and could not reasonably be adjusted to be fully compliant with ADA regulations. For assistance with this data or information, please contact the Sonoma County Water Agency's Community & Government Affairs Division, at SonomaWater@scwa.ca.gov or 707-547-1900.

Figures and Tables

1 Introduction

The Sonoma Valley County Sanitation District (SVCSD) is the project proponent and lead agency in accordance with the California Environmental Quality Act (CEQA) for the proposed Sonoma Valley County Sanitation District System Protection Plan at Kohler and Sonoma Creek Crossings Project (Proposed Project), which is a sanitary sewer protection and streambank stabilization project. Sonoma County Water Agency (Sonoma Water) manages the SVCSD. SVCSD contracted with a consultant to prepare this Draft Initial Study and Proposed Mitigated Negative Declaration (Draft IS/Proposed MND) to provide decision-makers, the public, responsible agencies, and trustee agencies with information about the potential environmental impacts associated with the construction, maintenance, and operation of the Proposed Project. After completion of the public review period for this document, this Draft IS/Proposed MND, along with a summary of comments submitted and response, will be brought before the SVCSD's Board of Directors for their consideration.

This Draft IS/Proposed MND was prepared pursuant to the requirements of CEQA (California Public Resources Code Sections 21000 et seq.), State CEQA Guidelines (Code of Regulations, Title 14, Division 6, Chapter 3), and Sonoma Water's Procedures for the implementation of CEQA.

1.1 Initial Study Review

The SVCSD is circulating this Draft IS/Proposed MND for a 30-day public and agency review period. Agencies and interested members of the public are invited to review and comment on the Draft IS/Proposed MND. All comments received prior to 5:00 p.m. on the date identified for closure of the public comment period in the Notice of Availability/Intent to Adopt (Appendix A) will be considered. Please include a name, address, and telephone number of a contact person for all future correspondence on this subject.

Please send comments to:
David Cook, Senior Environmental Specialist
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404 Aviation Boulevard
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Or email comments to:
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1.2 Summary of Findings

The Draft IS/Proposed MND describes the Proposed Project and its environmental setting, including the Project site's existing conditions and applicable regulatory requirements. The document also evaluates potential impacts from the proposed project on the following resources:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources

- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Mandatory Findings of Significance

Potentially significant effects were identified for air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, transportation, and tribal cultural resources. The Proposed Project incorporates measures that would reduce all impacts to a less-than-significant level.

2 Project Location and Description

2.1 Project Background and Existing Structures

There are multiple sanitation districts within Sonoma County managed by Sonoma Water, including SVCSD that provides wastewater collection and treatment for the City of Sonoma and some of the surrounding unincorporated areas. SVCSD is responsible for treating wastewater from approximately 18,000 residences within its service area (SCWA No Date). Sonoma Water, the SVCSD's and its facilities, include sanitary sewer lines that collect wastewater and a treatment plant at the south end of the valley.

SVCSD has underground sanitary sewer collection pipelines that service the Glen Ellen area and convey sewage to the SVCSD Treatment Plant. The existing 16-inch diameter main sewer trunk line that crosses under Kohler Creek and the 6-inch diameter lateral sewer pipeline that crosses under Sonoma Creek were installed in the 1970s.

Many creeks in the Sonoma area have become incised, often due to historic and present-day land uses. These land uses have led to downcut stream channels with unstable streambanks, including portions of Sonoma and Kohler creeks through the project area.

An existing 16-inch diameter main trunk sewer line roughly parallels the west side of Sonoma Creek in the project area and crosses beneath Kohler Creek, which is a tributary to Sonoma Creek. A maintenance hole is located along the pipeline at the top of bank of Kohler Creek. A 6-inch diameter lateral sewer pipeline serving a small residential community east of Sonoma Creek, crosses beneath Sonoma Creek and connects to the main sewer trunk line. This lateral sewer pipeline (also called a siphon) had a maintenance hole located at the top of bank of Sonoma Creek that was partially removed due to bank erosion, see below for details.

Streambank erosion and downcutting in the project area has exposed pipeline segments and streambank erosion is migrating towards existing maintenance holes in both Sonoma and Kohler creeks. The channel banks adjacent to the maintenance holes are composed of moderately erodible material that, when saturated, loses soil cohesion and breaks loose. In addition, the erosion occurring along Kohler Creek is likely related to high-energy dissipation in the upstream pool from the perched culvert outlet that passes under Arnold Drive. SVCSD implemented emergency repairs at the project site in 2019 to prevent further bank erosion that could expose the sewer pipeline and cause sewage spills. The 2019 emergency repairs involved installation of rock riprap to reinforce the channel banks in three locations in the project area. The work also included installation of a K-rail at one location to reinforce the streambank and removal of the upper part of the concrete maintenance hole adjacent to Sonoma Creek. These emergency repairs were considered a temporary means to slow the progression of streambank erosion until a permanent repair could be completed. There is a small group of 2 to 5 year old alder trees (Figure 1) immediately downstream of the Sonoma Creek emergency repair to be protected in place and incorporated into the permanent repair.

Figure 1: Existing vegetation (alders) downstream of Sonoma Creek emergency repair (PCI 2021)

The Proposed Project would provide a long-term solution for protecting the sewer infrastructure and restoration of the creek corridor, preventing undermining from larger-scale geomorphic adjustments, and facilitating long-term vegetation establishment. To address these issues, the Proposed Project would remove the emergency repairs and install permanent repairs that would offer increased stability to the streambanks, provide protection to the sewer pipelines and the above ground appurtenances threatened by active bank erosion, and provide an opportunity to reestablish native vegetation to stabilize slopes and improve habitat conditions along the affected streambanks. This will prevent potential wastewater spills that could result from the failure of the pipelines. Table 1: Proposed Project Objectives, Sonoma Valley County Sanitation District System Protection Plan at Kohler & Sonoma Creek Crossings Project Objectives lists the project objectives and beneficial outcomes. Furthermore, the Proposed Project would protect habitat for local populations of the following special-status animal species listed below by preventing further loss of habitat from streambank erosion and by incorporating habitat enhancement into the design.

- California freshwater shrimp (*Syncaris pacifica*), State and federally listed as endangered
- Central California Coast steelhead DPS (*Oncorhynchus mykiss*), federally listed as threatened
- Chinook salmon – Central Valley fall/late fall-run ESU (Evolutionarily Significant Unit) (*Oncorhynchus tshawytscha*), SC-NMFS (National Marine Fisheries Service) Species of Concern and SSC-California Species of Special Concern.

Table 1: Proposed Project Objectives, Sonoma Valley County Sanitation District System Protection Plan at Kohler & Sonoma Creek Crossings Project Objectives

Objective	**Project Beneficial Outcomes**
Stabilize the bank on Kohler Creek to protect the 16-inch sewer line and maintenance hole and revegetate the site.	• Protect existing 16-inch sewer line • Create a wider, less incised channel segment • Reduce erosion potential
Stabilize the bank and protect the 6–inch siphon/pipe at Sonoma Creek crossing and maintenance hole.	• Protect existing 6-inch sewer lines • Protect the maintenance hole • Increase vegetation cover • Prevent further bank erosion
Layback, stabilize, and revegetate the bank along Sonoma Creek.	• Protect existing 16-inch sewer line • Provide replacement habitat for freshwater shrimp and salmonids • Increase native vegetation leading to expand habitat for native species • Eliminate tall vertical or overhanging cut banks that are introducing sediment into the creek

2.2 Project Location and Regional Setting

The Proposed Project would be located on residential private property at 13965 Arnold Drive, which already contains two SVCSD easements, south of the town of Glen Ellen at the confluence of Sonoma Creek and Kohler creeks (Figure 2).

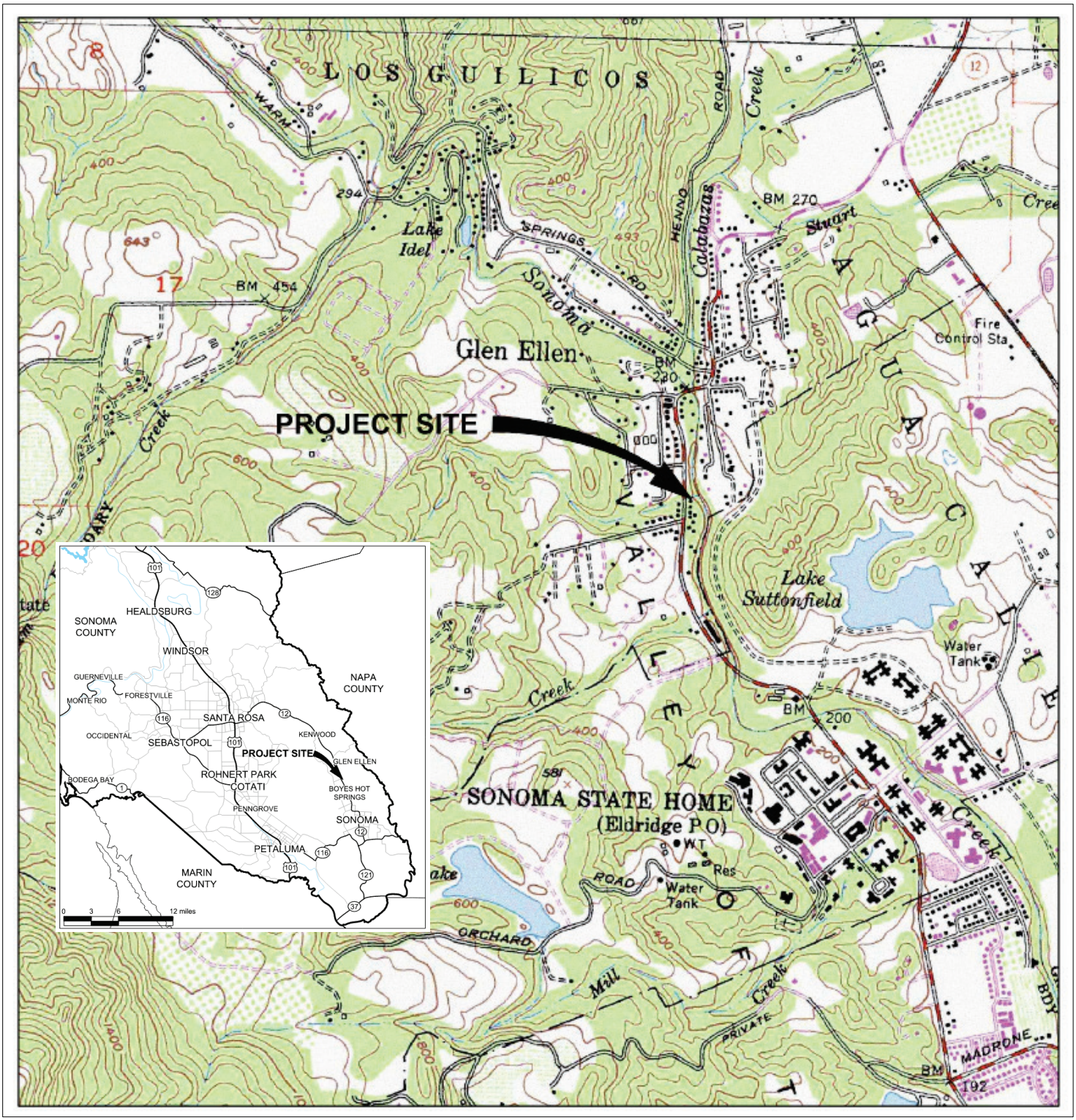

Figure 2: Sonoma Valley County Sanitation District System Protection Plan at Kohler & Sonoma Creek Crossings – Location Map

2.3 Project Description

The Proposed Project would implement permanent repairs along Sonoma and Kohler creeks and establish new and expanded easements to provide access along the pipeline routes for repair and maintenance purposes. The permanent repairs would stabilize streambanks and channel beds along Kohler and Sonoma creeks using a combination of rock slope protection, fabric reinforced fill material (FREF), log/rootwad revetments, brush mattress, and native vegetation (Figure 3). In addition, the existing siphon across Sonoma Creek would be armored with large boulders. Site improvements would also include revegetation with native plants and installation of habitat improvement elements for California freshwater shrimp, steelhead, Chinook salmon and other aquatic species in Sonoma Creek.

A recently resurfaced driveway would be used to access the site for construction and maintenance purposes. Sonoma Water holds an existing maintenance easement along the pipelines and siphon as shown in grey on Figure 4. New temporary construction easements and new future easements would be necessary to construct and maintain the project. The SVCSD would acquire the temporary construction easements necessary for construction as shown on Figure 4 in light blue and the future maintenance easements as shown in yellow. The temporary construction easements would be held for up to five years or for the duration of the revegetation period.

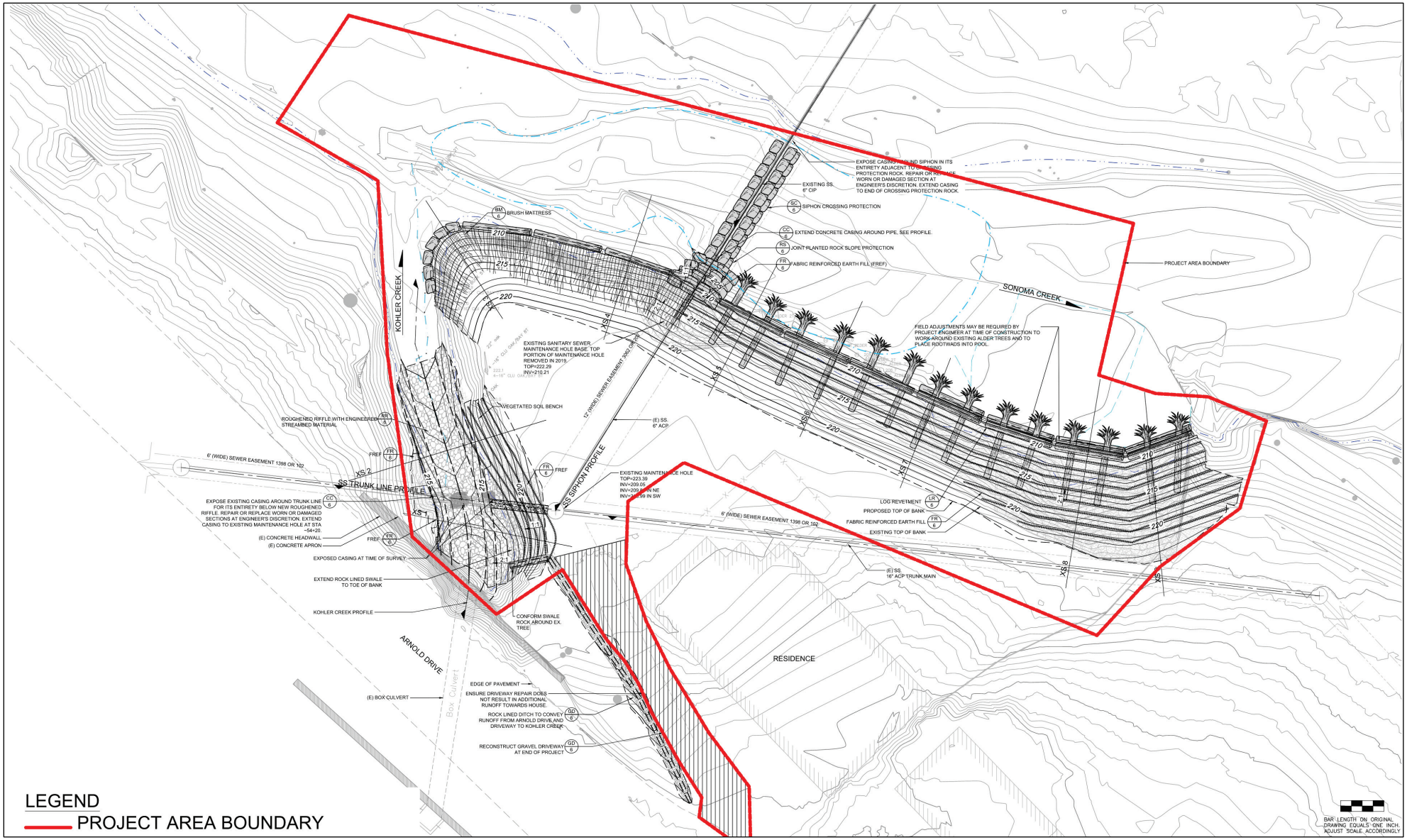

Figure 3: Glen Ellen Wastewater Sonoma Valley County Sanitation District Collection System Protection Plan (PCI 2022)

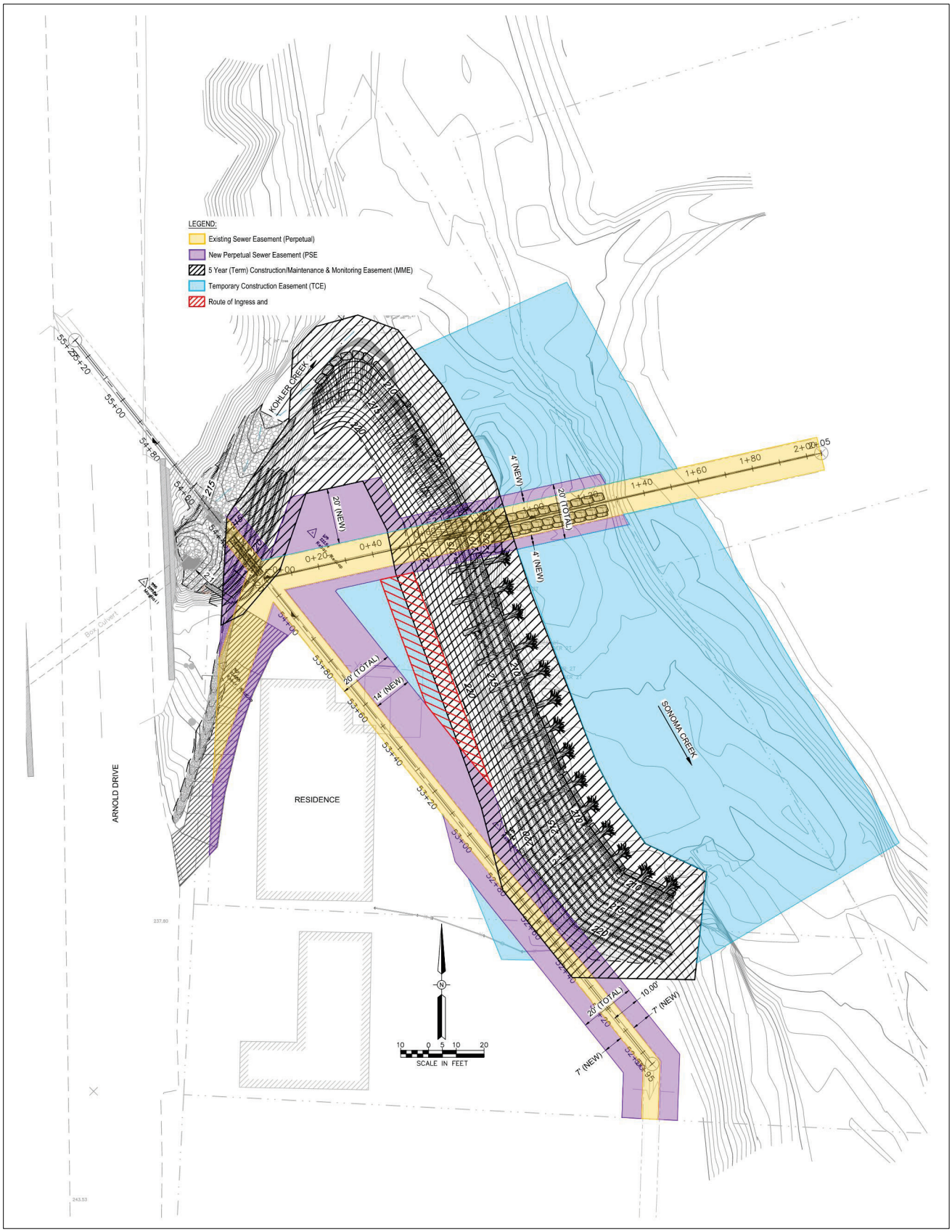

Figure 4: Sonoma Valley County Sanitation District System Easements Needed (Sonoma Water 2022)

2.3.1 Kohler Creek Stabilization and Pipeline Protection

Kohler Creek is deeply incised, which has led to high stream velocities and increased erosion along its banks during high flow events. Consequently, channel scour and site erosion has exposed the concrete cap of the existing sewer line where it crosses under the channel bed. Bank erosion adjacent to the pipeline crossing has partially exposed the maintenance hole. Emergency repairs in 2019 included temporary placement of rock riprap to protect the maintenance hole and prevent further streambank erosion (Figure 5).

Figure 5: Riprap Placement along bank of Kohler Creek to protect 16" sewer trunk (Photo by PCI April 2021)

The Proposed Project work at Kohler Creek is designed to stabilize the channel and streambanks to cover the sewer line and prevent erosion that would continue to threaten the pipeline if the problem is unabated. The Proposed Project would include installation of a rocked roughened ramp constructed using engineered streambed material[1] to achieve two feet of cover over the 16-inch sanitary sewer trunk line beneath Kohler Creek. The existing concrete casing around the sewer line would be extended into the streambanks to further protect the pipe, and the streambanks would be stabilized and planted with native vegetation.

The concrete casing would be made of rebar reinforced concrete and would extend a minimum of 6 inches beyond the edge of the sewer line on three sides (Figure 6: *Cross sectional view of the new concrete casing to protect the trunk sewer at Kohler Creek (PCI 2022)*. The concrete would be cast-in-place at the work site. The bottom of the trunk line would remain partially buried at the bottom of Kohler Creek.

[1] Engineered streambed material includes various rock sizes from pebbles to boulders. The material is placed on site to achieve the desired gradation and then set with fine material to form a tight structure.

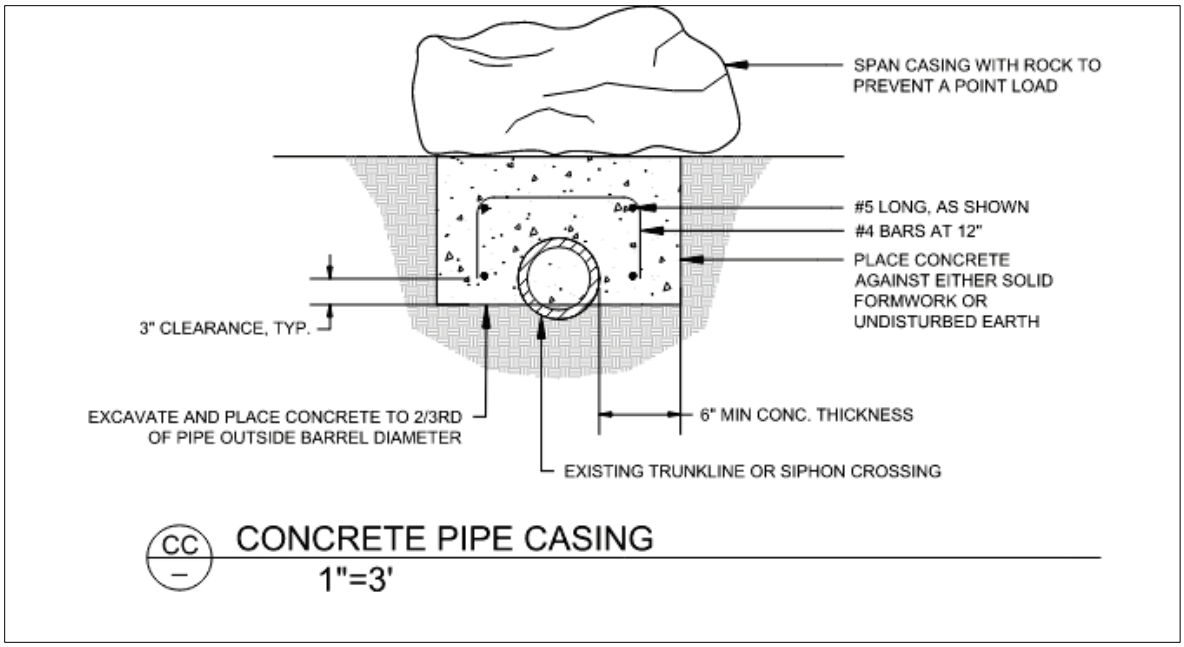

Figure 6: Cross sectional view of the new concrete casing to protect the trunk sewer at Kohler Creek (PCI 2022)

Placement of rock material in the bed of Kohler Creek would be placed to provide cover over the existing pipeline. Placement of different sizes of rock would allow for more stability and for conditions to more closely resemble a natural streambed. The rock would be placed over the concrete casing to protect the pipeline from scour and to prevent further streambank erosion. Rock placement would extend 20 feet upstream of the sewer pipe to the outlet of a culvert that conveys Kohler Creek under Arnold Drive and for 30 feet below the pipe crossing. The rock placement below the outlet would slow the flow of water and dissipate erosion-causing water velocities. Rock would be placed at a thickness of at least two feet and the roughened riffle is designed to remain stable through the 100-year design storm. Rock removed from the emergency repairs would be reused at this location to construct the roughened riffle plus additional imported rock. A channel profile along the proposed roughened ramp or thalwag (THW)[2] is shown on Figure 7.

[2] A thalwag is a line defining the course of the deepest part of a river channel.

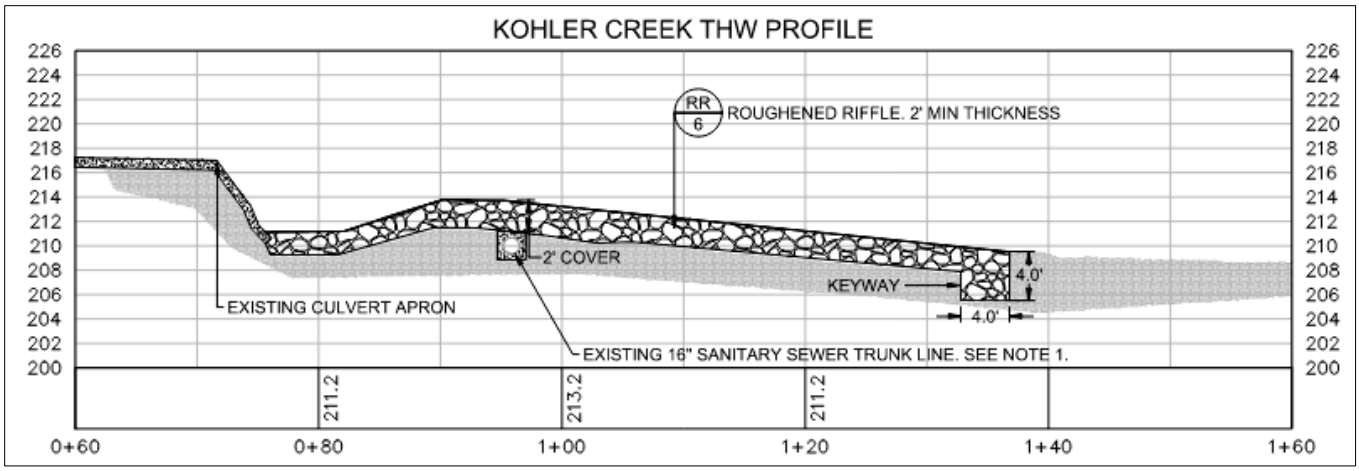

Figure 7: Profile view of the proposed Kohler Creek bank repair (PCI 2022)

Fabric reinforced earth fill[3] (FREF) and vegetated soil benches would be installed on both banks along Kohler Creek. Soil benches would be installed along the edges of the active channel and planted with rush, sedge, dogwood, and other native plants to provide floodplain/edge habitat and allow for establishment of riparian vegetation along the channel margins. A series of horizontal, stair stepped FREFs would replace the rock installed for the emergency repair. The FREF would be planted with native blackberry, honey suckle, and wild rose. As these plants grow, the root system helps to stabilize the soil and strengthen the bank and the foliage provides shade and cover to the stream channel. Figure 8 shows a section of how the FREF is designed. The FREFs would be placed along the upper banks of Kohler Creek from the existing culvert at Arnold Drive downstream approximately 50 feet to provide planting locations for the native revegetation to occur.

[3] A FREF or fabric reinforced earth fill is a combination of erosion control fabric and soil used to stabilize a slope and provide areas to plant vegetation. FREF is commonly used to replace rock slope protection where site conditions allow.

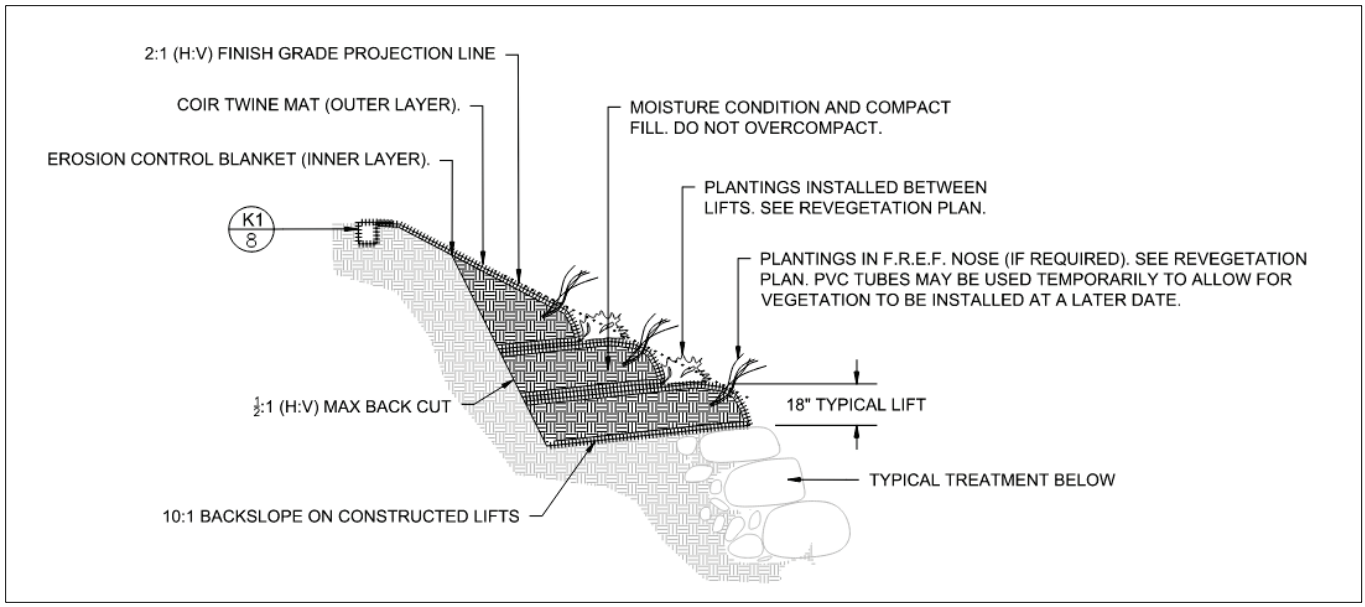

Figure 8: Cross section view of the Kohler Creek bank repair (PCI 2022)

2.3.2 Sonoma Creek Stabilization and Pipeline Protection

The Proposed Project area on Sonoma Creek starts at the confluence of Kohler and Sonoma creeks and continues downstream for approximately 250 feet with an area of about 0.13 acre. The Proposed Project along Sonoma Creek includes three types of repairs in three distinct areas: at the Siphon Pipe and streambank repair at locations both upstream and downstream of the siphon, described below. Refer to Figure 9 that shows the work areas extending from the confluence with Kohler Creek to approximately 250 feet downstream.

Figure 9 illustrates the locations of the Siphon Site and the location of both the upstream and downstream locations.

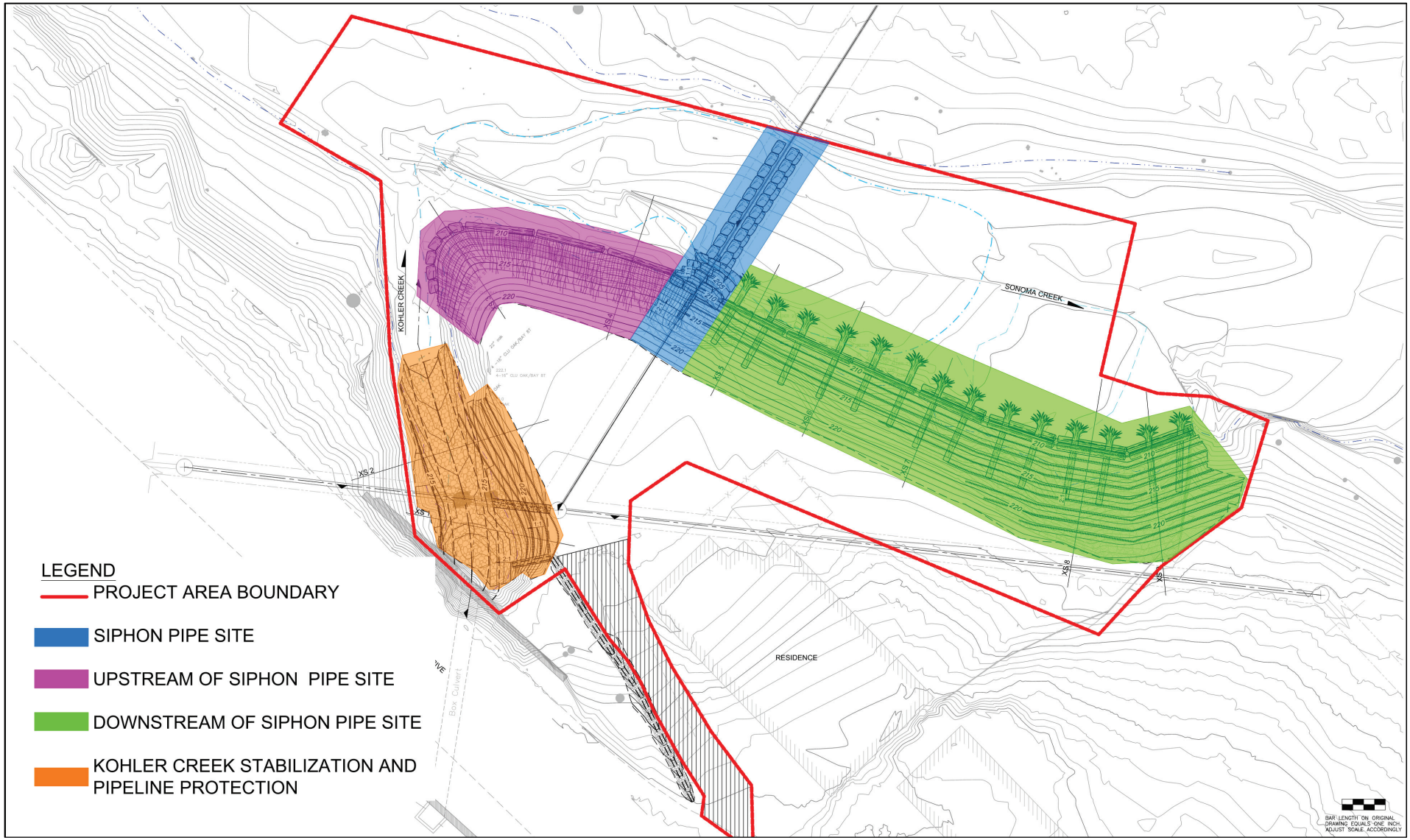

Figure 9: Locations of three proposed work areas along Sonoma Creek banks (PCI 2022)

Siphon Pipe

Channel incision has exposed a 6-inch cast iron siphon pipe crossing Sonoma Creek. Continued streambank erosion also threatens to undermine an existing maintenance hole above the streambank. As part of the emergency repair in 2019, the upper portion of the maintenance hole was removed and temporary rock riprap was installed along the bank (Figure 10). The upper portion of the maintenance hole was removed to minimize the risk of the maintenance hole falling into the creek as bank erosion migrated towards the structure. Riprap was installed and a K-rail was placed at the base of the riprap to hold it in place and prevent rock movement into the stream (Figure 10). In 2022, approximately 60 percent of the k-rail had become undermined and the SVCSD installed three vertical rods in front of it to support it and prevent it from overturning into the creek and landing on the pipe. Following the series of atmospheric rivers during the 2022/2023 wet season, the riprap at the upstream end of the repair has washed away and the k-rail became mostly undermined and is almost entirely supported by the driven rods. The riprap and k-rail would be removed and the rock would be stockpiled for reuse in the permanent repairs.

Figure 10. Temporary riprap eroded/moved at upstream end exposing underlying geogrid filter fabric during series of atmospheric rivers. K-rail is also undermined and supported primarily by three steel rods installed in fall 2022. (Photo by SVCSD May 2023)

The proposed repair would extend the existing concrete casing around the 6–inch sewer line in the same manner as the concrete casing would be installed around the sewer line

beneath Kohler Creek. Rock slope protection (RSP) would be placed up to the 10-year storm water surface elevation to reinforce the base of the streambank and to stabilize the area that was temporarily repaired in 2019. The joints in the rock slope protection would be planted with a combination of dogwood and willow poles.

A series of fabric reinforced earth fill (FREF) would be installed above the rock slope protection at a 2:1 (horizontal: vertical) slope to the top of bank (Figure 11 and 12). The fabric reinforced earth fill would be planted with vegetation that can withstand seasonal flooding and dry summer conditions, such as willow, and perennial grasses and shrubs (see revegetation section).

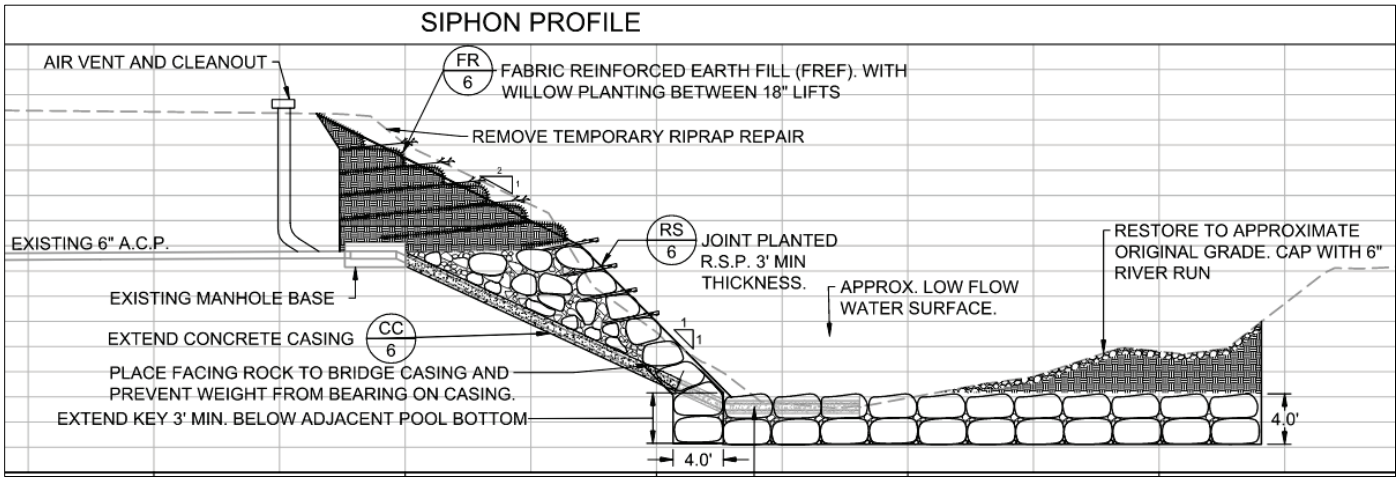

Figure 11: Profile of repair at siphon pipe (PCI 2022)

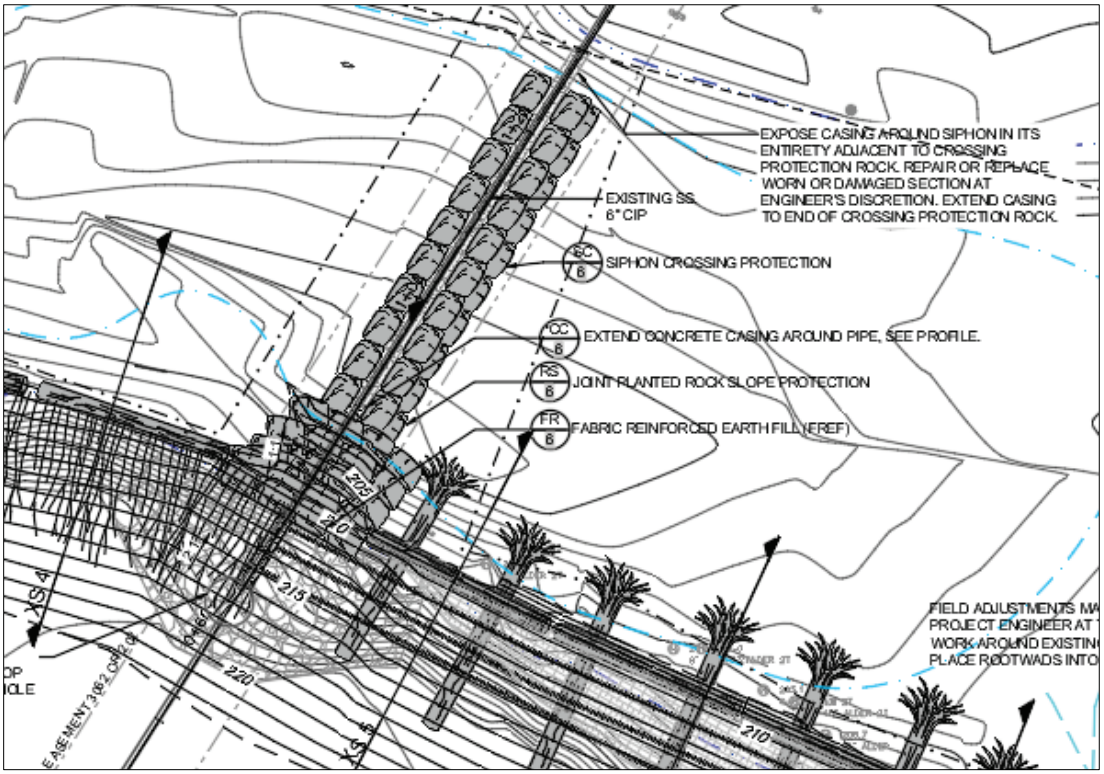

Figure 12: Plan view of repair at siphon pipe (PCI 2022)

Upstream of Siphon Pipe Site

Immediately upstream of the rock slope protection area, the existing bank is 12 to15 feet high and eroding so severely it is vertical or overhanging. The Proposed Project would place large logs would be placed along the lower streambank to protect against scour, to support the toe of the bank, and to provide habitat for salmonids and freshwater shrimp that was lost due to bank erosion. Logs would be placed one layer thick and willow brush mattresses placed behind the logs to stabilize the streambank (Figure 13).

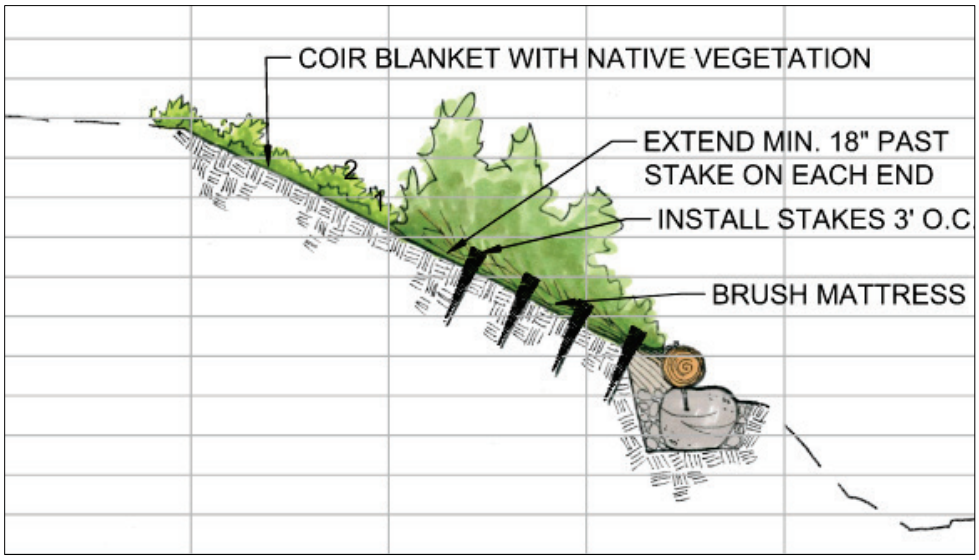

Figure 13: Log and brush mattress placement on Sonoma Creek (PCI 2021)

Rocks would be placed at the toe of the streambank at the confluence of Kohler and Sonoma creeks to prevent continued scour (Figure 14). The streambank above the rocks would be planted with native plant species, such as willow and dogwood (Table 2).

Figure 14: Rock placement and native revegetation on Sonoma Creek (PCI 2021)

Downstream of the Siphon Pipe Site

The entire length of the streambank downstream of the siphon site to the edge of the project area is failing due to undercutting and scouring of the bank during high flows. The Proposed Project includes the placement of log revetments with a series of fabric-reinforced earth fill or FREFs would be placed along the bank to stabilize the area and to create salmonid and California freshwater shrimp habitat that has been impacted by bank erosion (Figure 15).

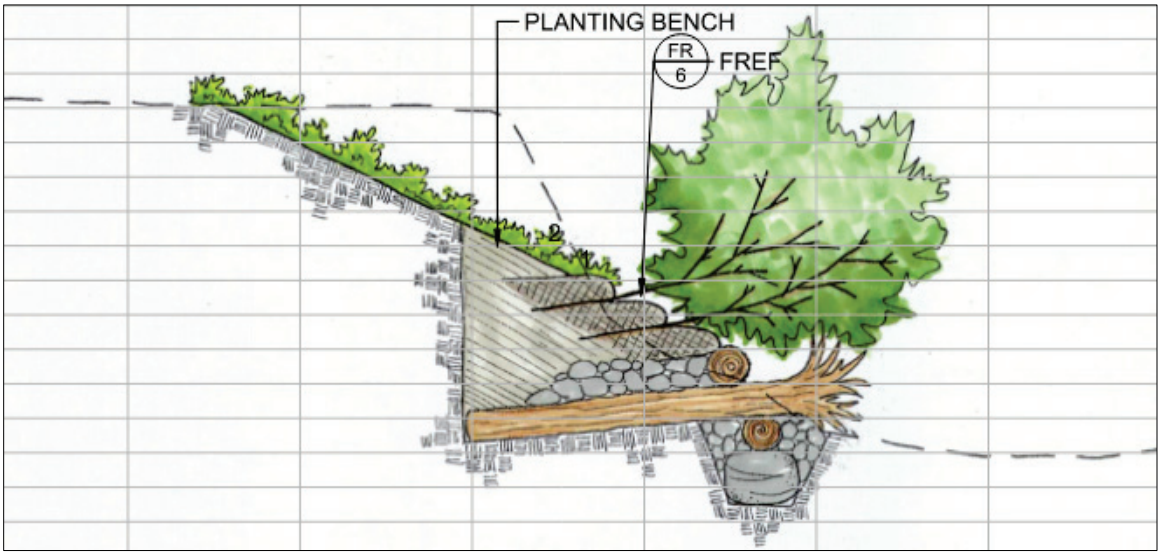

Figure 15: Log revetment and FREF on Sonoma Creek (PCI 2021)

A log revetment is a collection of logs and rootwads installed in the bank to prevent bank erosion. The logs would be keyed into the streambank for added stability and the rootwads would extend into the channel to provide habitat for native species including California freshwater shrimp, salmonids, and other aquatic species. The roots would be placed at depths that would be inundated during winter base flow water levels. The fabric reinforced earth fill would be planted with willow cuttings and perennial grasses and shrubs. The streambank above log revetments and fabric reinforced earth fill would be laid back at a 2:1 slope and planted with native vegetation. The bank layback would be covered with coir mat to provide protection against erosion and to provide additional stability. An existing small patch of two to five-year-old alder trees in this area would be maintained and integrated into the project design.

2.3.3 Driveway Repair

The existing gravel driveway on Arnold Drive would be used for temporary construction access and would be repaired to pre-project conditions at the end of construction.

2.3.4 Easements

The Proposed Project would include negotiation and acquisition of temporary construction easements; 5-year construction, maintenance, and monitoring easements; and future perpetual sewer pipeline easements (perpetual). SVCSD has existing easements along

the existing pipelines including a 6-foot-wide easement across a portion of Kohler Creek and across private property and a 12-foot wide easement across Sonoma Creek. Temporary construction easements would be needed to accommodate construction of the Proposed Project (Figure 1). These easements would include staging and access areas and proposed work areas for construction, including areas for temporary irrigation during the plant establishment period. Permanent maintenance easements would be required to provide SVCSD access to monitor and maintain the sewer lines and the areas necessary to maintain, repair, or replace stabilization measures to protect infrastructure. These easements would be secured from private property owners. All construction-related activities and future maintenance work would be limited to the extents of the temporary construction easements and within the maintenance easements (Figure 16).

2.3.5 Access, Staging, and Equipment

Construction access would occur from Arnold Drive onto an existing driveway at 13965 Arnold Drive. SVCSD has an existing maintenance easement to use this driveway for maintenance work. Access for construction would require repair of the driveway to pre-construction conditions. Construction staging would take place within a temporary construction easement in the backyard of the private residence.

The Proposed Project would require approximately 1,075 cubic yards of rock, soil, redwood logs, and root wads for construction, although up to approximately 120 cubic yards of rock already exists on-site from the 2019 emergency repairs and may be re-used.

The types of equipment that would be used during construction may include, but are not limited to, the following: JD 200LC excavator, JD210 loader, compactors/roller, pickup truck, flatbed truck, backhoe, dump truck, water truck, and concrete truck. In total, construction activities would require approximately 94 one-way truck trips for delivery of rock and other materials. Daily worker trips would vary throughout construction.

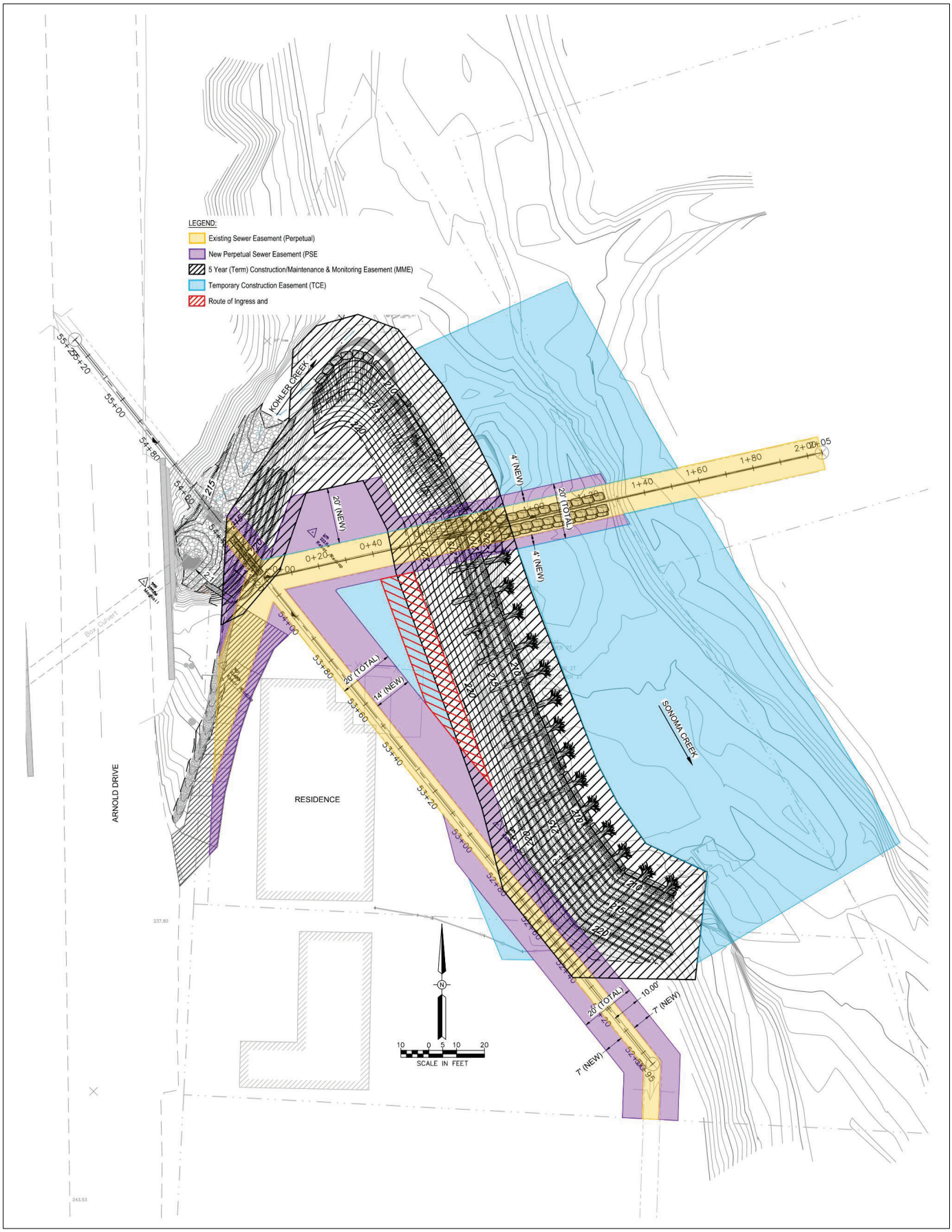

Figure 16: Existing and Required Easements (PCI 2022)

2.3.6 Dewatering

Dewatering would occur at the confluence of Sonoma and Kohler creeks to the downstream end of the project area in Sonoma Creek to provide a dry work area during construction of the Proposed Project. Kohler Creek may be dry at the time of construction; however, if water is flowing at the start of construction then approximately 125 of dewater of the channel may be needed. Approximately 250 feet of Sonoma Creek would be dewatered to accommodate construction in the channel. The exact method of dewatering would be determined by the construction contractor, but would likely include the use of a cofferdam, sheet pile system, or other method to block the channel and water would be sent through a bypass pipeline to provide movement downstream of the project by aquatic species, including California freshwater shrimp and salmonids. Use of a bypass pipeline would be short and would remain in operation only for a minimum amount of time necessary for construction to occur. Any bypass pipeline would allow for downstream movement of aquatic species while semi-aquatic reptiles and amphibians would avoid use of the bypass and disperse around the construction area. The construction period, including use of the bypass pipeline, would occur outside the adult steelhead migration period and outside the migration period for most aquatic animals. Dewatering techniques would follow the requirements in the NOAA Programmatic Biological Opinion for Salmonid Habitat Restoration, Section 1.3.7.1: Requirements for Fish Relocation and Dewatering Activities (NOAA 2016).

2.3.7 Vegetation Removal and Revegetation, and Erosion Control

Areas to be graded would be cleared and grubbed at the start of construction, and retained existing trees would be pruned under the direction of a qualified biologist or certified arborist. Vegetation and roots greater than 2 inches in diameter would be removed in areas to be graded, and the debris would be off-hauled and appropriately disposed or chipped on site and used for erosion control.

The Proposed Project's revegetation plan would stabilize exposed soils, reduce erosion, and quickly revegetate disturbed areas with appropriate native plant species. Site revegetation would be conducted and include seeding with native upland grass, sedge, and/or forb species after construction activities are complete during the fall and prior to the first significant rainfall. Willow and dogwood poles would be installed to a depth below the baseflow ground water level within the interstitial spaces in rock slope protection areas at the time of construction rather than planting during the fall planting period (Figure 17).

The plant palette includes species listed in Table and illustrated on Figure 17. These species would be installed according to the plan to ensure they are placed in the appropriate locations across the project area.

Table 2: Proposed Revegetation Plant Palette

Common Name	Scientific Name	Pole (P), Container (C), Seed (S)	Quantity
Trees			
Red willow, shining willow	*Salix laevigata*	C	884 to 1,034
Big leaf maple	*Acer macrophyllum*	T	2
Shrubs & Vines			
Dwarf coyote brush	*Baccharis pilularis 'Pigeon Point'*	D	540
Dogwood	*Cornus nuttallii*	D	74
California Buckwheat	*Eriogonum fasciculatum var. foliolosum*	D	230
Coffeeberry	*Frangula californica*	D	8
Honeysuckle	*Lornicera hispidula*	D	56
Rose	*Rosa californica*	D	56
Blackberry	*Rubus ursinus*	D	56
Sedge & Rush			
Gray rush	*Juncus patens*	S	29
Sedge	*Carex barbarae*	S	27
Seed Mix			
Yarrow	*Achillea millefolium*	2.5%	7 lbs total seed mix
California brome	*Bromus carinatus*	30%	
California poppy	*Eschscholzia california*	2.5%	
Blue wildrye	*Elymus glaucus*	30%	
Buckwheat	*Eriogonum fasciculatim*	2.5%	
Small fescue	*Festuca microstachys*	30%	
Sky lupine	*Lupinus nanus*	2.5%	

** Container Sizes: C = contractor harvested cuttings, T = treepot, D = deepot, S = supercell*

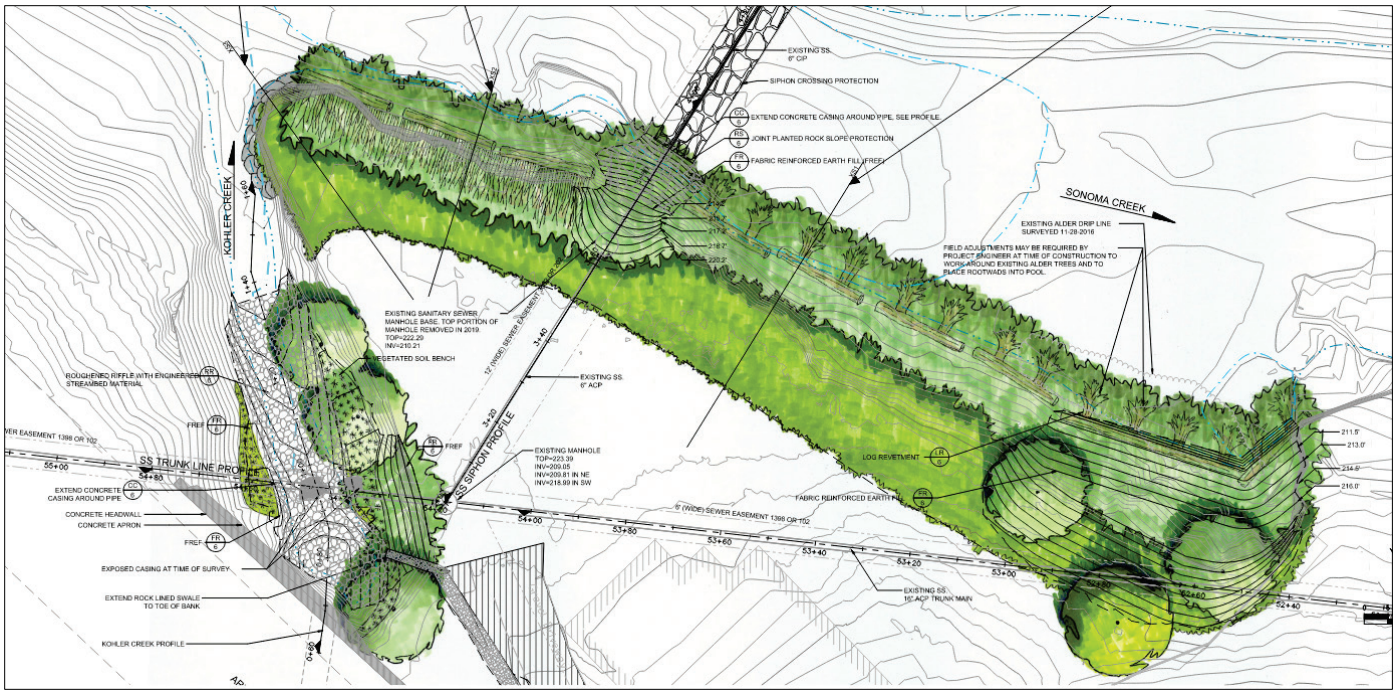

Figure 17: Revegetation Plan Rendering (PCI 2021)

All staging and access areas would be stabilized following use. The access road and staging area are presently a gravel surface used for resident parking and staging by SVCSD workers during maintenance and cleaning of the pipes (Figure 18). These sites would be restored to existing conditions. The staging area would be decompacted to restore infiltration and promote revegetation. Topsoil salvaged before initial ground disturbance would be replaced before proceeding with erosion control measures. Weed free straw would be placed on the soil surface and punched or crimped into the soil to prevent erosion. The areas would be seeded with native upland grasses. Biodegradable erosion control blanket would be used to prevent erosion in disturbed areas as appropriate to provide protection to seeds and plants, to hold them in place, and to help retain moisture. The areas of concrete and rock in the channel would not be seeded and would not receive revegetation treatments.

Figure 18. Existing condition of access road and area above siphon pipe site. (Photo by SVCSD 2023)

Seeded and planted areas would be inspected after the first winter rain events. If evidence of erosion were detected, corrective measures would be implemented including additional seed application, installation of native nursery stock plantings, and/or installation of erosion control fabric. A monitoring report describing the success of revegetation and any corrective measures implemented would be prepared annually for five years.

2.4 Project Schedule, Monitoring and Reporting

Project construction is anticipated to take three months. All in-channel excavation would occur during the dry, low flow season, between June 15 and October 15. Construction activities would take place during daytime hours from 7:00 a.m. and 7:00 p.m., Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturdays. The ground-disturbing work period may be extended past October 15 during dry weather with approval from resource agencies that have jurisdiction over the project area.

Site revegetation would be conducted during the fall and prior to the first significant rainfall event. Monitoring would be conducted to assess survival and ecological function at the site for five years. Monitoring would be conducted to evaluate the efficacy of the revegetation methods and to identify and implement corrective measures, if required. Monitoring would involve collecting quantitative data on vegetative cover, percent cover of native plants, and photo documentation of revegetation areas. Annual reports of the proposed project, monitoring findings, success criteria, and corrective measures would be completed by January 31 for five years following construction.

2.5 Conformance with the General Plan and General Plan Designation

The Proposed Project area is subject to the land use policies and designations adopted in the Sonoma County General Plan 2020 (Permit Sonoma 2016). The Sonoma County General Plan 2020 contains a variety of goals, objectives, policies, programs, and implementation measures, which address several environmental resources and concerns including biological, cultural resources, geologic hazards, hazards and hazardous materials, water quality, noise, public services and utilities, and transportation and traffic.

The Sonoma County General Plan 2020 Zoning and Land Use Designation for the Proposed Project area is Urban Residential Area (Permit Sonoma 2016).

The Proposed Project appears to be consistent with applicable general plans and policies and would not limit or restrict any existing activities that occur in the project area. In addition, SVCSD would comply with Sonoma County ordinances and zoning codes, such as County Zoning Code Regulation Article 65 (Riparian Corridor Combining Zone) Section 26-65-040, allowing several activities including “stream maintenance and restoration carried out or overseen by the Sonoma County Water Agency [Sonoma Water].”

2.6 Project Alternatives

The No Project Alternative would mean that the repairs and stabilization work at the site would not be implemented, and the existing erosion and channel incision would continue. The No Project Alternative would likely result in the failure of the existing sewer pipelines that cross Kohler and Sonoma creeks and the pipeline portion across upland private property. Failure of the sewer pipelines would result in a sewer spill into Kohler or Sonoma creeks; flooding of Sonoma and Kohler Creek water into the SVCSD collection and treatment system causing system overflows; shutdown of the sanitary sewer system upstream of the project site affecting the entire town of Glen Ellen and the community on the east side of Sonoma Creek; and implementation of temporary emergency repairs under difficult and hazardous wet conditions with flow in the creeks. The system shutdown would also necessitate trucking of wastewater to the SVCSD treatment plant. The release of sewage could degrade aquatic habitats. Continued erosion could increase the loss of aquatic and riparian habitat as the streambank continues to erode and widen the channel. The wider channel would pose the risk of additional private property loss as the streambank migrates across private property towards existing private residences.

The Reduced-size Alternative would implement repairs on only the most eroded areas and address stability issues directly where current erosion is threatening sewer pipe stability. This alternative would not fully address the erosion and stability issues. Consequently, implementation of the reduced-size alternative would likely result in adjacent erosion causing failure of the repair measures and restoring the potential failure of the sewer pipe at the repair or at a location not stabilized under the Proposed Project. Failure of a sewer pipeline(s) would result in a sewer spill into Sonoma Creek. The channel and pipeline instability issue at Kohler Creek would be addressed in the reduced-size alternative; however, the risk remains at areas along Sonoma Creek and release of sewage could degrade aquatic habitats and result in the consequences described above. Continued erosion could increase the loss of aquatic and riparian habitat as the streambank continues to erode and widen the channel. The wider channel would pose the risk of additional private property loss as the streambank migrates across private property towards existing private residences.

2.7 Other Public Agencies Whose Approval is Required

The following is a list of public agencies who may require review or approval of the Proposed Project, or who have jurisdiction over the project area.

- United States Army Corps of Engineers (USACE)
- United States Department of Fish and Wildlife (USFWS)
- National Marine Fisheries Service (NMFS)
- California Department of Fish and Wildlife (CDFW)
- San Francisco Bay Regional Water Quality Control Board (SFBRWQCB)
- Sonoma County Permit and Resources Management Department (Permit Sonoma)

3 ENVIRONMENTAL CHECKLIST

The Proposed Project's environmental impacts were assessed based on the environmental checklist provided in Appendix G to the CEQA Guidelines. The checklist provides a summary of potential impacts that may result from implementation of the proposed project. In addition, each section below includes a discussion of the rationale used to determine the significance level of the Project's environmental impact for each checklist question. A list of environmental factors and summary of findings are below. The findings of each environmental analysis are included in Sections 3.1 through 3.21.

With regard to the checklist, a "No Impact" response indicates that the analysis concludes that the Proposed Project would not have the impact described. A "Less-than-Significant Impact" response indicates that the Proposed Project would not cause a substantial adverse change to the environment and mitigation is not required. A "Less Than Significant with Mitigation Incorporated" response indicates that the Proposed Project may cause a substantial adverse change to the environment, but that mitigation measure(s) have been identified that would reduce the impact to a less-than-significant level. A "Potentially Significant Impact" response indicates that the Proposed Project may cause a substantial adverse change to the environment and that the impact cannot be reduced to a less-than-significant level by incorporating mitigation measures. An environmental impact report must be prepared.

Each response is discussed at a level of detail commensurate with the potential for adverse environmental effect. Each question was answered by evaluating the Proposed Project as proposed, that is, without considering the effect of any added mitigation measures. The Draft Initial Study includes a discussion of the potential impacts and identifies mitigation measures to substantially reduce those impacts to a level of insignificance where feasible. All references and sources used in the Draft Initial Study are listed in the References section of the document.

Environmental Checklist and Summary of Potential Impacts

Environmental Factor	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Aesthetics	☐	☐	☒	☐
Agriculture and Forestry Resources	☐	☐	☐	☒
Air Quality	☐	☒	☐	☐
Biological Resources	☐	☒	☐	☐

Environmental Factor	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Cultural Resources	☐	☒	☐	☐
Energy	☐	☐	☒	☐
Geology and Soils	☐	☒	☐	☐
Greenhouse Gas Emissions	☐	☐	☒	☐
Hazards and Hazardous Materials	☐	☒	☐	☐
Hydrology and Water Quality	☐	☒	☐	☐
Land Use and Planning	☐	☐	☐	☒
Mineral Resources	☐	☐	☐	☒
Noise	☐	☒	☐	☐
Population and Housing	☐	☐	☐	☒
Public Services	☐	☐	☐	☒
Recreation	☐	☐	☐	☒
Transportation	☐	☐	☒	☐
Tribal Cultural Resources	☐	☒	☐	☐
Utilities and Service Systems	☐	☐	☒	☐
Wildfire	☐	☐	☒	☐
Mandatory Findings of Significance	☐	☒	☐	☐

3.1 Aesthetics

	Except as provided in Public Resources Code Section 20199, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
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 points)*. 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?	☐	☐	☐	☒

3.1.1 Setting

The Proposed Project is located in a rural area approximately ½ mile south of the town of Glen Ellen. The project area is located adjacent to Arnold Drive on privately owned property at the confluence of Kohler and Sonoma creeks as shown on Figure 2: Sonoma Valley County Sanitation District System Protection Plan at Kohler & Sonoma Creek Crossings . The project area lays between Arnold Drive and Sonoma Creek adjacent to two privately owned residences and across from a County-owned parcel along Kohler Creek.

Arnold Drive is the only public viewing point of the Proposed Project. Arnold Drive is characterized as a rural roadway with single-family residences located on both sides of the roadway in a rural residential setting. Arnold Drive is located approximately 15 feet higher than the project area and a large house, trees, and other vegetation line the roadway past the site and almost entirely blocks the view of the project area from the roadway.

Sonoma and Kohler creeks flow through the project area and the surrounding lands that support California bay forest, riparian forest, non-native scrub, and disturbed grasslands. The banks of both Kohler Creek and Sonoma Creek through the project area are nearly void of vegetation because the sites are actively eroding. Existing vegetation is minimal on the steep cutbanks, and rocks in the temporary repair area are visible with little or no vegetation in and around the area and few trees exist within the project site. The sewer line across Kohler Creek is visible from the privately owned residence; however, the site is not visible from Arnold Drive.

The Sonoma County General Plan 2020 defines scenic resources under three categories: Community Separators, Scenic Landscape Units, and Scenic Corridors (Permit Sonoma 2016). The project area is located within a Scenic Corridor that follows Arnold Drive through the Sonoma Valley, but not within or visible from a Community Separator or Scenic Landscape Unit. There are no California Department of Transportation (Caltrans) designated State Scenic Highways or County Scenic Highways within the project vicinity (Caltrans 2023).

3.1.2 Discussion of Potential Impacts

Potentially significant environmental impacts associated with aesthetics can be subjective in nature because the response to aesthetics varies from person to person. In terms of methodology, potentially significant environmental impacts on aesthetics have been determined by identifying whether project elements would result in the loss or degradation of a scenic attribute or in a demonstrable negative effect to overall visual quality. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Aesthetic Resources if it would:

a) Have a substantial adverse effect on a scenic vista? *No Impact*

A scenic vista can be defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the public. There are no officially designated scenic vistas in or near the Proposed Project area, and the project area is not visible from public viewpoints. The construction site would be briefly visible from vehicles passing by the access driveway on Arnold Drive during the approximately three-month construction period, and site maintenance activities in future years may be partially visible from the

same location on Arnold Drive. Vegetation screening along the roadway would block direct views of most construction and maintenance activities.

Existing vegetation along Arnold Drive would continue to screen the site following construction of the Proposed Project. In addition, the Proposed Project has been designed to minimize tree removal and to minimize removal of other vegetation to accommodate construction. Although the Proposed Project would result in the permanent placement of rock, logs, and rootwads on the banks and within the channel of both Kohler and Sonoma creeks to stabilize the currently eroding streambanks, revegetation would quickly reestablish vegetation throughout the project area. The revegetation effort would include installation of trees and shrubs and grasses and forbs to provide vegetative cover over the rocks and logs. Existing vegetation along Arnold Drive would continue to screen the project area from driver's view along Arnold Drive. Neither construction nor maintenance of the Proposed Project would result in a substantial adverse effect on a scenic vista. No impact would occur.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? *Less than Significant*

Scenic resources can be defined as those landscape patterns and features that are visually or aesthetically pleasing. These include, but are not limited to, trees, rock outcroppings, and historic buildings. Scenic areas, open spaces, rural landscapes, and vistas also contribute to a net visual benefit for the viewer. The California Department of Transportation (Caltrans) manages the California Scenic Highway Program to protect State highways located in areas of outstanding natural beauty. Portions of Highway 12 through the Sonoma Valley are identified by Caltrans as either officially designed or eligible for designation as a scenic highway. These segments are outside the project vicinity; therefore, there are no Caltrans-designated State Scenic Highways within the project vicinity (Caltrans 2023).

Sonoma County General Plan 2020 has identified the area along Arnold Drive as Scenic Corridor through the Sonoma Valley, and the Proposed Project would be located within the Scenic Corridor (Permit Sonoma 2016). The Proposed Project has been designed to minimize removal and trimming of trees and other vegetation to accommodate construction. The Proposed Project would result in the permanent placement of rock, logs, and rootwads on the banks and within the channel of both Kohler and Sonoma creeks to stabilize the currently eroding streambanks and protect the pipelines. The addition of rocks to cover the sewer pipe across Kohler Creek would be within the channel and would blend with the existing conditions within the area. Placement of rocks, logs, and rootwads along the bank of Sonoma Creek would prevent future erosion and allow for establishment of vegetation to cover the design elements needed to protect the sewer

lines that cross the creek and parallel the channel bank. Revegetation would be part of the Proposed Project to quickly reestablish vegetation throughout the project area and prevent adverse visual impacts within the Scenic Corridor. The revegetation effort would include installation of trees and shrubs and grasses and forbs to provide vegetative cover over the rocks and logs and hide the pipeline protection measures from public view.

Construction access would occur along an existing driveway at the site. Construction activity may be briefly visible as drivers pass the driveway, which is the only part of the project site not completely screened by existing vegetation. The view of construction vehicles would be extremely limited and would only occur during temporary construction period and during maintenance activities. Any impact within the Scenic Corridor would be temporary and would not adversely alter views. Existing vegetation along Arnold Drive would continue to screen the project along Arnold Drive. Neither construction nor maintenance of the Proposed Project would substantially damage a scenic resource, and there would be a less-than-significant impact.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? *Less than Significant*

Changes to visual character can be defined as the perceived contrast between the existing visual elements of an area and how the area would look after the project is implemented, as a measure of how compatible the project would be with the existing visual environment after it is implemented.

The project area is located within the Scenic Corridor that runs along Arnold Drive through the Sonoma Valley. All the Proposed Project components would be located within the Scenic Corridor. As such, an evaluation using the County of Sonoma's Visual Assessment Guidelines, which were developed to assess the impacts of individual projects in both unincorporated and incorporated locations, to evaluate the Proposed Project's potential for impacts on aesthetic resources (Permit Sonoma 2019). These guidelines provide for rating site sensitivity and the visual dominance of the project site, and then using a combination of these ratings to assess the potential for significant impacts (Permit Sonoma 2019). Under this methodology, the sensitivity of the Proposed Project site would be considered "high" due to its location inside a Scenic Corridor. The Visual Assessment Guidelines also define a methodology for determining the visual dominance of a Proposed Project. Project elements that are not visible from the public view are considered "inevident" and project elements that are minimally visible from public view, or can be seen but do not attract attention, would be considered "subordinate." Although the project site would be briefly visible from vehicles passing the access driveway on Arnold Drive during both construction and maintenance periods, vegetation

screening along the roadway would block direct views for most activities. As the visual elements of the Proposed Project would not be visible from public view following construction because of both existing vegetation and landscape topography along Arnold Drive, the site would be “subordinate” in terms of visual dominance. The Proposed Project impacts to the visual character or quality of the project site would be less–than-significant.

The Proposed Project would not conflict with applicable zoning or other regulations governing scenic quality. The Sonoma County General Plan 2020 Land Use Designation for the project area is Urban Residential, an area designated for urban development (Permit Sonoma 2016).

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? *No Impact*

New sources of light and glare can occur from lighting associated with buildings and from exterior light sources such as street lighting, building illumination, security lighting, and landscape lighting. Glare is an objectionable brightness, the effect usually created by the reflection of sunlight or artificial light from highly polished surfaces, including windows and automobile glass during the daytime.

The Proposed Project does not contain any sources of light or glare. The Proposed Project would not add any new sources of light or glare, and therefore, the Proposed Project would result in no impact on day or nighttime views.

3.2 Agricultural and Forestry Resources

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
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 §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

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

3.2.1 Setting

The California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program (FMMP) provides a classification system based on technical soil ratings and current land use. The FMMP is an informational service only and does not have regulatory authority over local land-use decisions. The minimum land use-mapping unit is 10 acres unless specified; the map incorporates smaller units of land into the surrounding map classifications. Pursuant to CEQA Guidelines Appendix G, the term "Farmland" refers to FMMP map categories Prime Farmland, Unique Farmland, and Farmland of Statewide Importance (hereafter collectively referred to as "Farmland"). Generally, any conversion of land from one of these categories to a lesser quality category or a non-agricultural use would be an adverse impact. These map categories are as follows:

Prime Farmland: Land that has the best combination of physical and chemical characteristics to produce crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.

Unique Farmland*:* Land of lesser quality soils used to produce specific high economic value crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. It is usually irrigated but may also include non-irrigated orchards or vineyards.

Farmland of Statewide Importance*:* Land that is like Prime Farmland but with minor shortcomings, such as greater slopes or less ability to hold and store moisture.

The Proposed Project area does not contain any prime, unique, or important farmland. The California Department of Conservation maps this area as "Urban and Built-up Land" (DOC 2022).

3.2.2 Discussion of Potential Impacts

A project would normally result in a significant impact to agriculture and/or forestry resources if the project will alter existing agricultural land uses or land use designations. Generally, any conversion of land from one of the Farmland categories to a lesser quality category or a non-agricultural use would be a potentially significant impact. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Agricultural and Forestry Resources if it would:

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 a non-agricultural use? *No Impact*

The Proposed Project area does not include mapped Farmlands, and it does not support agricultural use. The site would remain as “Urban and Built-up Land” following project completion. The Proposed Project would not result in conversion of Farmland to a non-agricultural use; therefore, there would be no impact.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? *No Impact*

The project area is mapped as “Urban and Built-up Land”. There are no designated agricultural lands or Williamson Act contracted parcels on the site. Therefore, implementation of the Proposed Project would not impact 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 §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))? *No Impact*

The California Public Resources Code Section 12220(g) defines “forest land” as land that can support, under natural conditions, 10 percent native tree cover of any species, including hardwoods, and that allows for the preservation or management of forest-related resources, such as timber, aesthetic value, fish and wildlife, biodiversity, water quality, recreational facilities, and other public benefits. "Timberland" means land, other than land owned by the federal government and land designated as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products.

The Proposed Project would be located on a privately owned parcel zoned for low-density residential, which includes a SVCSD easement. The property does not support forest land and the area is not zoned timberland production. Implementation of the Proposed Project would have no impact on lands zoned as forest land, timberland, or timberland production.

d) Result in the loss of forest land or conversion of forest land to non-forest use? *No Impact*

As discussed above, the project area does not contain zoned forest land, and it is not used for any timber-related activities. Therefore, implementation of the Proposed Project would have no impact due to the loss or conversion of forest land to a non-forest use.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? *No Impact*

The project area does not include farmland and does not support forest land. Implementation of the Proposed Project would not convert farmland to a non-agricultural use or convert forest land to a non-forest use; therefore, implementation of the Proposed Project would have no impact associated with farmland or forest land conversion to non-agricultural or non-forest use.

3.3 Air Quality

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant 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 or dust) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Setting

The project site is located in the San Francisco Bay Area Air Basin (Air Basin), where air quality is regulated by the Bay Area Air Quality Management District (BAAQMD). Where available, the significance criteria established or recommended by the BAAQMD were used to make determinations related to the CEQA Appendix G checklist's air quality impact questions. In accordance with CEQA Guidelines Section 15064.7 (Thresholds of Significance), SVCSD exercises its own discretion to use the significance thresholds in the BAAQMD CEQA thresholds based on substantial evidence contained in the BAAQMD's record for adoption of the thresholds (which is relied on and incorporated herein).

Air quality is a function of both the rate and location of pollutant emissions under the influence of meteorological conditions and topographic features that influence pollutant

movement and dispersal. Atmospheric conditions such as wind speed, wind direction, atmospheric stability, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants, which affects air quality.

In general, ambient air quality in a region depends on the quantities of pollutants emitted by sources within the area, transportation of pollutants to and from surrounding areas, local and regional meteorological conditions, and the surrounding topography. Air quality is characterized by the concentration of pollutants in the atmosphere and/or emissions of pollutants. Units of concentration are typically expressed in parts per million (ppm) or micrograms per cubic meter (µg/m3) and emissions are typically expressed as pounds per day (lb/day) or tons per year.

The Federal Clean Air Act (CAA) and the California Clean Air Act form the basis of the air quality regulations and programs that govern the project area and the wider Air Basin. Air quality is monitored and regulated by the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the BAAQMD.

A region's success in promoting good air quality is measured by comparing the concentration of pollutants in the atmosphere to the known safe level set as State and federal standards. Chemicals with potential basin-wide effects are regulated under the CAA in two groups: 1) toxic air contaminants with immediate, acute toxicity effects and 2) criteria pollutants that are common chemicals with long-term health effects. Acutely toxic chemicals are problematic at any concentration; however, the effect of criteria contaminants depends on the amount of exposure over time. Criteria pollutants include ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), sulfates, lead, and fine (PM2.5) and coarse (PM10) particulate matter.

EPA sets limits on maximum atmospheric concentration for each criteria pollutant. The State of California is required to use these limits, but may also set higher standards when CARB determines that doing so would protect human health. When an area is at or below the regulatory standard, it is said to be "Attainment" for that pollutant. The Air Basin is designated non-attainment for the federal and State ozone standards, the State PM10 standard, and the federal and State PM2.5 standards (BAAQMD 2017). The Air Basin is designated attainment or unclassified for all other federal and State air quality standards.

Accordingly, the pollutants of greatest concern in Sonoma County are ozone and particulate matter. Ozone is not emitted directly, but is formed in the atmosphere through chemical reactions between precursor chemicals, including CO, NO_2, and volatile organic compounds (VOCs). Motor vehicles are the largest source of ozone precursor emissions. Particulate matter is divided into two categories: coarse particulate matter with a diameter of 10 microns or less (PM10) and fine particulate matter with a diameter of 2.5 microns or less (PM2.5). High concentrations of particulate matter can impact human health, as well as contribute significantly to regional haze and reduced visibility. PM10 is produced by

combustion, industrial processes, motor vehicles, and grading and construction. PM10 emissions associated with motor vehicle use are primarily generated by re-suspended road dust, rather than direct vehicle emissions. PM2.5 is most commonly generated through combustion, including wood burning furnaces and regional wildfires.

3.3.2 Discussion of Potential Impacts

A project would normally result in significant impacts to air quality if changes to existing air quality would result from construction, operation, use, and/or maintenance activities from implementation of the project. The Proposed Project has been evaluated to determine if changes to existing air quality would result from construction, public use, operations, and/or maintenance. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Air Quality if it would:

a) Conflict with or obstruct implementation of the applicable air quality plan? *Less than Significant*

The applicable air quality plan for the Proposed Project is the BAAQMD's 2017 Clean Air Plan: Spare the Air, Cool the Climate (2017 CAP) adopted in April 2017, which provides a regional strategy to reduce air pollution and thereby protect public health and climate (BAAQMD 2017). The 2017 CAP describes how the BAAQMD will continue progress towards attaining all federal and State air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. Regarding climate protection, the 2017 CAP focuses on achieving greenhouse gas reduction targets for 2030 and 2050, such as for methane and carbon dioxide. The 2017 CAP includes control measures designed to decrease emissions of air pollutants most harmful to Bay Area residents, including ozone and particulate matter.

The BAAQMD published CEQA Air Quality Guidelines in April 2022 (2022 BAAQMD Guidelines) to assist in evaluating the potential air quality impacts of Proposed Projects in the Air Basin during the environmental review process consistent with CEQA requirements. The BAAQMD 2022 CEQA Air Quality Guidelines revision identifies a three-step methodology for determining a project's consistency with the current clean air plan (BAAQMD 2023). The BAAQMD considers a project consistent with the CAP if it: 1) can be concluded that a project supports the primary goals of the CAP (by showing that the project would not result in significant and unavoidable air quality impacts); 2) includes applicable control measures from the CAP; and 3) does not disrupt or hinder implementation of any CAP control measure.

Because the Proposed Project would not result in new long-term operations-related emissions and construction-related emissions would be short-term and less than significant (see Impact b, below), implementation of the Proposed Project would not conflict with the primary goals of the 2017 CAP. The CAP includes 85 control measures across nine sectors: stationary (industrial sources); transportation; energy; buildings;

agriculture; natural and working lands; waste management; water; and super-GHG pollutants. Sonoma Water incorporates the basic and enhanced construction-related BMPs for construction-related fugitive dust emissions into its standard construction contract specifications (Appendix B). The Proposed Project would not include new stationary sources or new permanent mobile sources, would not introduce a new land use, and would not use a substantial amount of energy. The Proposed Project would incorporate all applicable control measures and implementation of the project would not hinder implementation of any control measures included in the CAP. Therefore, implementation of the Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan, and the impact would be less than significant.

b) Result in a cumulatively considerable net increase of any criteria pollutant under an applicable federal or State ambient air quality standard? *Less than Significant*

The Air Basin is designated non-attainment for the federal and State ozone standards, the State PM10 standard, and the federal and State PM2.5 standards, which is primarily due to the region's development history. Generally, no individual project is large enough to result in non-attainment of air quality standards on its own. Instead, individual project emissions can cumulatively contribute to adverse air quality conditions. If an individual project's contribution to the existing cumulative impact were considerable, then the project's impact on air quality would be considered significant.

The Proposed Project would result in minor and short-term criteria pollutant emissions during construction from equipment exhaust and worker trips to the project site. Construction of the Proposed Project would include use of heavy equipment, which would result in direct emissions of criteria pollutants. Earthwork activities and the movement of equipment and workers within the project area would also result in some fugitive dust emissions. Additionally, contractors driving to and from the site would result in emissions from vehicle use. These construction-related emissions would be temporary and short-term in nature and would cease after construction of the project.

Emissions during construction would vary in nature and vary considerably from day-to-day, by type of equipment, and daily weather. The 2022 BAAQMD CEQA Air Quality Guidelines (BAAQMD 2023) provide a process for evaluating the Proposed Project's impact related to criteria pollutant emissions and its potential to cause or contribute to a violation of air quality standards. The first step in this process is to evaluate whether the project meets the screening criteria defined in the 2022 BAAQMD CEQA Air Quality Guidelines (BAAQMD 2023). If the project meets all screening criteria, its impact is considered less than significant and further detailed analysis of potential project emissions is not required.

The screening criteria provide a conservative indication of whether the Proposed Project could result in potentially significant air quality impacts. If all of the screening criteria are met, then the construction of the Proposed Project would result in a less-than-significant impact from the criteria air pollutant and precursor emissions, and the lead agency would not need to perform a detailed air quality assessment of their project's air pollutant emissions (BAAQMD 2023). BAAQMD's construction screening criteria are as follows:

1. The project is below the applicable BAAQMD project screening level size;
2. Project implementation includes all Basic Best Management Practices for Construction-Related Fugitive Dust Emissions as listed in Table 5-2 of the 2022 BAAQMD CEQA Air Quality Guidelines (BAAQMD 2023); and
3. Construction-related activities would not include demolition, the simultaneous occurrence of more than two construction phases, simultaneous construction of more than one land use type, extensive site preparation, or extensive material transport – greater than 10,000 cubic yards of soil or material import/export.

The BAAQMD's screening size guidance includes operational-related criteria based on project land use types. The screening guidance does not provide criteria pollutant and precursor screening levels for projects similar to infrastructure maintenance in the Proposed Project. For reference, BAAQMD's construction criteria pollutant and precursor screening level size for a light industrial or industrial park development is 11 acres. The Proposed Project's total permanent and temporary impact area of less than ½ acre would be less than the BAAQMD's precursor screening level. Nonetheless, a CalEEMod evaluation was conducted, and the evaluation concluded that emissions from construction under the Proposed Project would be well below annual and daily thresholds for the listed pollutants even if the specific mitigation measures provided by the CalEEMod model were not implemented. Sonoma Water incorporates the basic and enhanced construction-related BMPs for construction-related fugitive dust emissions (Tables 5-2 and 5-3 of the 2022 BAAQMD CEQA Air Quality Guidelines (BAAQMD 2023) into its standard construction contract specifications (Appendix B). These BMPs protect air quality by avoiding or further minimizing potential adverse impacts to air quality thresholds during construction and maintenance activities.

Construction of the Proposed Project would not include demolition, simultaneous occurrence of more than two construction phases, and the site does not include more than one land use. The Proposed Project would not involve extensive site preparation or material transport as the amount of material import and export would be less than 1,000 cubic yards (cy) of rock and soil fill material, which is considerably less than the BAAQMD screening threshold of 10,000 cy. Therefore, the Proposed Project's contribution to a cumulative non-attainment criteria pollutant impact would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations? *Less than Significant*

Sensitive receptors are areas that are occupied by populations that are more susceptible to adverse effects from pollutants, such as children, the elderly, and people with illnesses. Sensitive receptors include facilities such as schools, hospitals, and communities for the elderly. Aside from nearby residences, the closest sensitive receptors to the project area, there are no schools, hospitals, or other sensitive communities near the project area. Jack London State Park and Sonoma Valley Regional Park are located to the east and west of the Proposed Project and the California Air Resource Board include parks as a potential sensitive receptor (CARB 2020).

Implementation of the Proposed Project would contribute to a minor temporary increase in air pollutants associated with project construction because of vehicle emissions, operation of construction equipment, and ground disturbance. However, these emissions would be temporary, and vehicle and equipment-related emissions would not result in localized concentrations of any criteria pollutants that would affect sensitive receptors. Project construction would result in fugitive dust emissions associated with grading and the movement of equipment and staff around the Proposed Project area. However, Sonoma Water incorporates the basic and enhanced construction-related BMPs for construction-related fugitive dust emissions (Tables 5-2 and 5-3 of the 2022 BAAQMD CEQA Air Quality Guidelines (BAAQMD 2023) into its standard construction contract specifications (Appendix B). As a result, the Proposed Project would not result in fugitive dust impacts to nearby residential areas or other sensitive receptors.

Some sensitive receptors are considered more sensitive than others due to pre-existing health problems, proximity to emissions sources, or duration of exposure to air pollutants. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods, with associated greater exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system. Residences located adjacent to the Proposed Project area would be considered sensitive receptors.

The significance of impacts to sensitive receptors is also dependent on the chance of contracting cancer from exposure to Toxic Air Contaminants (TACs) or of having adverse health effects from exposure to non-carcinogenic TACs. Construction equipment can produce substantial amounts of diesel particulate matter, which has been identified by CARB as a TAC. A project is considered to have a significant impact if the incremental cancer risk at a receptor exceeds 10 in a million. Health risk is evaluated for sensitive receptors within a 1,000-foot radius of a project's impact area. The project area is within 25 feet of the nearest residential receptor and approximately 34 residences within 1,000

feet of the site. Construction of the Proposed Project would generate diesel particulate matter (DPM) and gasoline fuel combustion emissions, which are considered to be TACs. The majority of TAC emissions would be generated during construction due to the use of heavy-duty off-road equipment needed to move and place large rocks.

As described in Section 3.3.b, Sonoma Water incorporates the basic and enhanced construction-related BMPs for construction-related fugitive dust emissions (Tables 5-2 and 5-3 of the 2022 BAAQMD CEQA Air Quality Guidelines (BAAQMD 2023) into its standard construction contract specifications (Appendix B).

Due to the temporary and variable nature of the construction and maintenance activities, and with the inclusion of the basic and enhanced construction-related BMPs for construction-related fugitive dust emissions in the project contract specifications, the Proposed Project would not result in the exposure of sensitive receptors to substantial pollutant concentrations. Therefore, the construction-related impact would be less than significant.

Following construction, maintenance and operation of the Proposed Project would not include any stationary sources of air emissions. Vehicle trips and equipment use associated with project maintenance would be far less than needed for project construction and would be temporary and intermittent in nature. Therefore, the exposure of sensitive receptors during project maintenance would be less than significant.

d) Result in other emissions, such as those leading to odors, adversely affecting a substantial number of people? *Less than Significant*

There are no air quality standards for odors. Odor impacts are subjective as odor sensitivity varies from person to person. Odor impacts are related, to some degree, to the distance from the origin of the odor to the receptor. Offensive odors rarely impact public health; however, odors can cause headaches and on-going odors can result in a negative impact to quality of life. In general, the types of land use that could result in potential odor emissions include refineries, chemical plants, wastewater treatment plants, landfills, composting facilities, and transfer stations.

BAAQMD's Regulation 7 – Odorous Substances (BAAQMD 1982) places general limitations on odorous substances and specific emission limitations on certain odorous compounds. These substances and compounds include dimethylsulfide, ammonia, mercaptans calculated as methylmercaptan, phenolic compounds calculated as phenol, and trimethylamine. The Proposed Project would not utilize these substances or compounds during construction or operation and maintenance activities, and therefore the Proposed Project would comply with this regulation.

Implementation of the Proposed Project would neither result in any major sources of odor nor introduce land uses that would pose potential future odor emissions. Short-term construction equipment related emissions, including diesel exhaust and fuel vapors, have the potential to result in short-term generation of odor emissions. These odor emissions would be temporary and would dissipate rapidly in the air, decreasing with distance from the source, thus minimizing potential exposure to nearby residences and persons utilizing parks and open space near the project area. Implementation of the Proposed Project would not result in odor emissions that would adversely affect a substantial number of people. Therefore, implementation of the Proposed Project would not result in odor emissions that would adversely affect a substantial number of people, and the impact would be less than significant.

3.4 Biological Resources

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

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
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?	☐	☐	☐	☒

3.4.1 Setting

The project area is within the Sonoma Creek watershed, a tributary to San Pablo Bay in southern Sonoma County, California. The Sonoma Creek watershed includes urban, residential, recreational, and agricultural uses. County, regional, and state park land is interspersed with vineyards, wineries, and rural residential neighborhoods. Open space areas dominate much of the watershed, with the historic town of Glen Ellen and Jack London State Park centrally located. Sonoma Creek is on the Regional Water Quality Control Board's Impaired Water Bodies List under Section 303(d) of the Clean Water Act, primarily due to sedimentation and nutrient loading.

Sonoma and Kohler creeks flow through the project area and the surrounding lands support California bay forest, riparian forest, non-native scrub, and disturbed grasslands. The property on which the Proposed Project would be implemented has been previously disturbed by residential development, during installation of the existing sewer system at the site and during emergency repairs. The residential driveway and parking area are void of vegetation while the area between the parking area and Sonoma and Kohler

creeks supports non-native grass and forbs. The banks of both creeks support little vegetation through the project area because of the eroding banks. SVCSD completed emergency repairs to quickly stabilize the most vulnerable areas, and these areas were rocked and support little vegetation.

The Sonoma Creek watershed is a 170-square mile watershed draining the Sonoma Valley and flowing directly to San Pablo Bay. The creek is perennial and is fed by numerous springs and seeps, and perennial flow is present at the project site. The watershed area at the project site is 45.6 square miles. A 275-foot reach of Sonoma Creek downstream of the confluence with Kohler Creek passes through the project area with proposed work focused primarily along the eastern bank and additional proposed work crossing the channel to the western bank along the existing siphon pipeline.

Sonoma Creek through the project area is characteristic of the creek's central reach that runs from Schellville upstream to Glen Ellen (PCI 2022). The channel substrate is primarily gravel and cobble and mature riparian vegetation lines the steep banks along Sonoma Creek providing some bank stability and limited canopy cover through the project area. Sonoma Creek's eastern bank through the project area is nearly vertical escarpment with little vegetation. A pool exists at the siphon site.

Kohler Creek is a small tributary that flows from the west and discharges to Sonoma Creek at the upstream end of the project area. The project area along Kohler Creek is located within the channel and along the right bank, immediately downstream of the culvert crossing at Arnold Drive. Kohler Creek is a relatively small drainage; the total watershed area is less than one square mile. The mapped length of stream channel is approximately 1.5 miles. Limited information is available on the Kohler Creek watershed, but based on its size and local hydrologic conditions, it supports intermittent flows primarily in winter and spring. Through the project reach, the creek has mixed canopy of California bay and non-native acacia. The banks are steep with areas of channel incision and erosion (Figure 19). Upstream fish passage is blocked by a 4- to 5-foot drop below the outlet of the culvert under Arnold drive and the velocities in the long smooth concrete culvert bottom. The portion of Kohler Creek in the project area also dries out most years with the exception of a stagnant isolated pool of standing water below the outlet of the culvert under Arnold Drive.

Figure 19: Photo on the left is Sonoma Creek and the photo on the right is Kohler Creek. Both photos illustrate the conditions through the project area. (Photos by SVCSD 2023)

Vegetation

Vegetation is limited at the project site. California bay woodlands and riparian forest are present both upstream and downstream of the project site. Valley oak (*Quercus lobata*) and buckeye (*Aesculus californica*) are present along the banks of Kohler Creek. The understory is composed of native and non-native plants including coast live oak (*Quercus agrifolia*) saplings, poison oak (*Toxicodendron diversilobum*), greater periwinkle (*Vinca major*), and French broom (*Genista monspessulana*). Annual grasses and other non-native forbs are also present.

Riparian forest, dominated by white alder (*Alnus rhombifolia*) is found along Sonoma Creek in the project area, but a minimal number of white alder are present at the project site because the streambank is actively eroding. The understory is sparse and mainly composed of non-native Himalayan blackberry (*Rubus armeniacus*). The banks support a few native species such as coast live oak saplings, miner's lettuce (*Claytonia perfoliata*), and California poppy (*Eschscholzia californica*). Non-native species along the bank include greater periwinkle, Harding grass (*Phalaris aquatica*), sheep sorrel (*Rumex acetosella*), and common velvet grass (*Holcus lanatus*). The alders are well established, where they are present, but invasive Himalayan blackberry and other weedy species make up a significant portion of the understory vegetation at the project site.

Disturbed scrub is present on a small part of the project site adjacent to the access road/driveway. This area is dominated by Himalayan blackberry, French broom, and greater periwinkle. Other species that are present in this area include dock (*Rumex sp.*), geranium (*Geranium sp.*), bur clover (*Medicago sp.*), Italian thistle (*Carduus pycnocephalus*), several immature forbs in the Aster family (Asteraceae), and annual grasses. There are a few valley oak saplings and one California bay tree present in this area. Overall habitat quality is low as invasive non-native species are abundant and native species are limited.

Non-native acacia (*Acacia* sp.) is present on a small part of the project site within the California bay forest north of Kohler Creek. No other trees, shrubs, or herbaceous species are present in this area. As this stand is small, comprised of a non-native species, and has no native diversity present, the overall quality in this habitat is low.

Disturbed grassland is present on a large section of the project site, including the access driveway, staging area, and above the top of the bank. No tree or shrub species are present in this area, and it is dominated by weedy species. Overall habitat quality in this habitat is low as non-native species are abundant and there is no native diversity present.

Special-status Plants, Fish, and Wildlife

A review of special-status species with potential to occur in the project area was conducted. A list of federally endangered and threatened species that may occur in the project area was obtained from the U.S. Fish and Wildlife Service (USFWS). The following background literature and database searches were conducted:

- California Natural Diversity Database (CNDDB) (CDFW 2022a),
- California Sensitive Natural Communities (CDFW 2022b),
- A Manual of California Vegetation Online (CNPS 2022a),
- CNPS Inventory of Rare and Endangered Vascular Plants of California (CNPS 2022b),
- Calfora database (Calflora 2022), and
- Information for Planning and Conservation (IPaC) Trust Resource List for the project area (USFWS 2022).

The CNDDB, CNPS, and the USFWS search results for the Proposed Project are listed in Appendix C. These tables include information on each species' habitat requirements, Critical Habitat (if designated), and the likelihood of occurring the project area. In evaluating the potential occurrence of special-status plant and animal species in the project area (No Potential, Low, Moderate, and High), relevant literature, knowledge of regional biota, and observations made during the field investigations were applied as analysis criteria.

Special-status Plant Species

Based on the background literature review, a number of special-status plant taxa were identified as having the potential to occur within the project vicinity. Taxa with reported observations in proximity to the project area and/or in habitat types of relevance were evaluated during site visits in 2021. Taxa that only occur in habitats not present within the project sites or that require specific microhabitat conditions were identified as not present, and field verified during 2021. The descriptions, listing status, general habitat, and potential occurrence at the site is for all species are included in Appendix C. The literature review identified four special-status plant species with potentially suitable habitat on the project site were more thoroughly evaluated to determine presence. None of the four

species was identified as present during the 2021 site visits and all were determined to not likely occur at the project site:

- Franciscan onion, *Allium peninsulare var. franciscum.* This species occurs in grasslands; however, they generally require clay, volcanic, often serpentine soils. The project site has gravelly soils or coarse sand. The site survey did not indicate presence due to site disturbance.
- Big-scale balsamroot, *Balsamorhiza macrolepis var. macrolepis*. This species is found in grasslands, chaparral, and woodland. The grassland habitat in the project site is highly disturbed, there are no recent or local occurrences near the project site, and the site survey did not indicate presence.
- Fragrant fritillary, *Fritillaria liliacea*. This species is found in woodland, coastal prairie, coastal scrub, and grasslands often on serpentine soils. Although there is grassland on the site, it is highly disturbed, the site is not coastal, and it does not have serpentine soils. The nearest occurrences are over 10 miles away.
- White seaside tarplant (congested-headed hayfield tarplant), *Hemizonia congesta ssp. congesta*. The highly disturbed grassland on the project site do not support habitat for the tarplant based on results of the site survey.

No federally or State-listed threatened or endangered plant species have been documented at the project site.

Special-status Animal Species

In general, riparian woodlands and creek systems such as those occurring in the project area provide nesting opportunities, food, and shelter, and may serve as corridors or refugia during migration, for a variety of fish and wildlife species. Based on the background literature review, a number of special-status animal species were identified as having the potential to occur within the project area (Appendix C). The following special-status animal species were identified as having a moderate to high potential to occur in the project vicinity (PCI 2022):

- Steelhead – Central California Coast distinct population segments (DPS) (*Oncorhynchus mykiss*), FT[4]
- Chinook Salmon – Central Valley fall / late fall-run Evolutionary Significant Unit (ESU) (*Oncorhynchus tshawytscha*), SC, SSC
- California Giant Salamander (*Dicamptodon ensatus*), SSC
- Foothill Yellow-legged Frog (*Rana boylii*), SSC Northwest/North Coast Clade
- California Red-legged Frog (*Rana draytonii*), FT, SSC

[4] Listing Status: FE-federally listed as endangered, FT-federally listed as threatened, BCC-Bird of Conservation Concern, SC – NMFS Species of Concern, ST- State listed as threatened, SE-State listed as endangered, Candidate ST-State candidate to be listed as threatened under CESA, FP-State of California fully-protected species, SSC-California Species of Special Concern, and WL-Watch List (CDFW 2022c).

- Red-bellied Newt (*Taricha rivularis*), SSC
- Western Pond Turtle (*Actinemys marmorata*), SSC
- California Freshwater Shrimp (*Syncaris pacifica*), FE, SE
- Northern Spotted Owl (*Strix occidentalis caurina*), FT, ST
- Pallid Bat (*Antrozous pallidus*), SSC, Western Bat Working Group high priority species
- Protected Nesting Birds

3.4.2 Discussion of Potential Impacts

A project would normally result in significant impacts to biological resources if it substantially modifies sensitive habitats, adversely affects wetlands, negatively affects endangered plant and/or animal species, or conflicts with established policies, ordinances, or plans associated with the protection of biological resources. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Biological Resources if it would:

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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? *Less than Significant Impact with Mitigation*

Special-Status Plants. As discussed is the setting section above and presented in the Special-Status Plant Species Table in Appendix C, the project site does not support habitat for special-status plant species for most species listed in CNDDB, CNPS, and the USFWS databases. The proposed staging area would be located on highly disturbed grassland that is currently used for parking by occupants of the residence on the site. The grassland was thoroughly evaluated for the presence of the four species that could be present on the site. No special-status plants were identified in the Proposed Project area; therefore, no impacts would occur.

Special-Status Animals. The 10 animal species that have a moderate to high potential to occur in the project area are listed above. Species with low or no potential to occur because their required habitat is not present in the project area are not discussed further in detail. Appendix C includes a table of all species identified on the CNDDB, USFWS, and NMFS databases

Implementation of the Proposed Project could modify habitat and potentially result in disturbance, displacement, or mortality of special-status wildlife including steelhead, Chinook salmon, California giant salamander, foothill yellow-legged, California red-legged frog, red-bellied newt, western pond turtle, California freshwater shrimp, pallid bat, northern spotted owl, and nesting birds if present in the area during construction.

The Proposed Project may impact protected species and require compliance with the federal and State Endangered Species Acts (ESA). Because the project would impact jurisdictional water subject to the authority of the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act, the USACE will consult with the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) in compliance with Section 7 of the federal ESA. Through this consultation process, NMFS and USFWS will define mitigation to compensate for unavoidable impacts to listed species and issue findings in Biological Opinions (BO) for the project. Following the provisions of Section 2080.1 of the California Fish and Game Code (California ESA), the California Department of Fish and Wildlife (CDFW) will review the incidental take statement in the BO and determine if it is consistent with the requirements of the California ESA. If CDFW determines that the federal authorization is not consistent with the California ESA, the project proponent (SVCSD) will apply for a State Incidental Take Permit under section 2081(b) of the California Fish and Game Code. Section 7(a)(2) of the Endangered Species Act requires that federal agencies ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species. “Jeopardize the continued existence of” means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species. (50 CFR § 402.02). Section 7(a)(2) also requires that federal agencies ensure that any action they authorize, fund, or carry out is not likely to destroy or adversely modify designated critical habitat. The California ESA in turn requires that any take allowed in a take permit be “fully mitigated.” (Cal. Fish & Game Code §2081(b); 14 CCR §783.4.) Thus, the State and federal permit process will mitigate the impacts to listed species, including California freshwater shrimp, steelhead, Chinook salmon, and California red-legged frog as described in detail below.

Implementation of Mitigation Measure BIO-1, Biological Worker Training Program would reduce impacts on special-status animals that might be present at the project site during construction. Educating workers on the fish and wildlife in the area and instructing them on what to do if they encounter special-status species during work would protect these species and reduce impacts to less than significant levels.

Mitigation Measure BIO-1: Biological Worker Training Program

The Sonoma Valley County Sanitation District (SVCSD) shall require contractors and internal staff participate in a biological resources training program.

Prior to beginning construction activities, all personnel involved in the activities shall participate in a biological resources educational training session conducted by a qualified biologist. A qualified biologist (including those specializing in botany, wildlife, and fisheries) is an individual who shall have a minimum of five years of academic training and professional experience in biological sciences and related

resource management activities with a minimum of two years conducting surveys for each species that may be present within the Proposed Project site. Resumes must be submitted to California Department of Fish and Wildlife, U.S. Fish and Wildlife Service and/or National Marine Fisheries Service, as appropriate, for 30 days prior to commencement of biological surveys. This training must include instruction on how to identify bird nests, recognize special-status species and sensitive habitats, regulatory protections, and the appropriate protocol if any special species or nests are found during Proposed Project implementation. Personnel who miss the first training session must participate in a make-up session before conducting construction activities.

Salmonids

Suitable habitat for both steelhead and Chinook salmon is present within the Sonoma Creek (PCI 2023). Kohler Creek lacks habitat for salmonids and a significant passage barrier exists 125 feet upstream of the confluence with Sonoma Creek through the project site (PCI 2023). Steelhead have been observed in Sonoma Creek; however, they have not been observed in Kohler Creek. CDFW mapping indicates the presence of steelhead and spawning habitat (fair quality), rearing habitat (fair quality), and migration habitat (good quality) within Sonoma Creek (NMFS 2005). The watershed is an important contributor to regional steelhead resources (Leidy et al. 2005). Multiple year classes have been observed indicating successful spawning and rearing. However, declines in populations within the watershed have been noted (Leidy et al. 2005). Sonoma Creek supports a pool immediately downstream of the siphon that could provide good habitat for steelhead during the winter and spring seasons (PCI 2023). The pool does not provide summer rearing habitat because high temperatures and low dissolved oxygen prevent summer use (PCI 2023).

A small run of Chinook salmon are known from the Sonoma Creek watershed. These fish are almost exclusively of Sacramento/San Joaquin River origin and are generally referred to as hatchery strays, as the Sacramento runs are now dominated by hatchery fish. Historically, spring-run Chinook dominated the overall runs and commercial fisheries prior to the installation of dams on many snow melt systems (Pers. Comm. Pecharich 2022). Fall-run Chinook are not known to be prevalent within the Sonoma Creek watershed, but a small number of fish are occasionally observed (PCI 2023). Most recently, in the fall of 2021, Sonoma Ecology Center documented successful spawning of Chinook salmon in the headwaters of Sonoma Creek, approximately five or more miles upstream of the project site (Pers. Comm. Lee 2023).

Chinook salmon typically emigrate out of freshwater systems in late February through June, and it is uncommon to find juvenile Chinook rearing in freshwater during summer (Pers. Comm. Pecharich 2022). Construction of the Proposed Project would begin after June 15 and after juvenile Chinook salmon have emigrated from the watershed, and work

would be complete before adults return in the fall. Chinook salmon are not likely to be present within the project area during construction.

Steelhead are likely present year-round within Sonoma Creek as the creek provides perennial flows and spawning and refuge habitat. However, during summer months, when instream construction would occur, lower numbers of steelhead are likely to rear in Sonoma Creek due to low water conditions.

Construction activities may affect steelhead and Chinook salmon if they are present in the project area at Sonoma Creek during construction. Dewatering would be necessary to provide a dry work zone for construction and maintenance activities for the proposed stabilization work at the siphon pipeline across Sonoma Creek and to install the proposed streambank stabilization activities. The proposed 250-foot dewatered reach reflects the length necessary to complete the proposed construction activities within Sonoma Creek. Kohler Creek does not support perennial flows; however, dewatering may be necessary in Kohler Creek if water is present when construction begins. A maximum of 125 feet of Kohler Creek may be dewatered from the confluence of Sonoma Creek to the upper limits of the project site. No salmonids would be present in Kohler Creek should dewatering need to occur.

Salmonids could be directly impacted by activities that disturb the stream channel and limit fish passage through the site. Dewatering would require fish capture from the dewatered reach and relocation of individuals to appropriate locations above or below the work area to a location unaffected by project activities. Relocation of individuals would require handling that could result in harm or take of individuals and the impact could be significant.

Stream habitat would be temporarily disturbed as a result of the dewatering and bank repairs within the project area. Dewatering of Sonoma Creek would result in temporary disturbance to 0.13 acres of steelhead habitat. Open water areas, streambanks, and in-stream vegetation would be temporarily impacted during the dewatering where steelhead may be residing. Dewatering of Sonoma Creek would also limit downstream and upstream movement of steelhead while dewatering occurs, which could increase exposure to predators due to fish concentration near cofferdams. The dewatering effects would be temporary as flows through the site would be restored following construction and the impacts would be less than significant.

Installation of the cast-in-place concrete casing around the siphon pipeline through the bank of Sonoma Creek could expose salmonids and other aquatic species to increases in pH levels if the concrete is not properly cured before dewatering facilities are removed and the flow of water is restored. This impact could be significant.

The Proposed Project would remove streambed material and replace it with boulders in a 350-square-foot area around the up and downstream side of the siphon to prevent scour

and undercutting around the pipeline. Large boulders would be placed along the bank of Sonoma Creek through the project reach as part of the log revetments and at the confluence of Sonoma and Kohler creeks to prevent future streambank scour. Although the use of rock is minimized in the project design and would be limited to only the amount necessary to meet the project objectives, rock placement would permanently fill approximately 1,850 square feet of existing aquatic habitat along the degraded bank of Sonoma Creek.

The project includes components that would improve the overall condition of salmonid habitat through the project area. Installation of log revetments, large rootwads, and revegetation of the streambank would all improve the overall habitat for salmonids and other aquatic species. The logs would increase streambank complexity by creating undercuts and over hanging rootwads and the revegetation would increase shade and provide beneficial conditions for salmonids. The long-term impacts would be beneficial.

Implementation of Mitigation Measure BIO-2: Protect Federally Listed Salmonid Species would minimize the potential take of protected species through the implementation of all terms and conditions of the National Marine Fisheries Service's Biological Opinion for the project and through following the dewatering, fish screening, and electrofishing protocols issued by the National Marine Fisheries Service (NMFS 2018).

Mitigation Measure BIO-2: Protect Federally Listed Salmonids

The Sonoma Valley County Sanitation District (SVCSD) shall obtain and comply with a Section 404 Clean Water Act permit from the U.S. Army Corps of Engineers (USACE). SVCSD shall comply with the requirements of any federal Endangered Species Act (ESA) Biological Opinion (BO) issued for the project by the National Marine Fisheries Service (NMFS) for salmonids. If the California Department of Fish and Wildlife (CDFW) finds that the BO does not satisfy California ESA requirements, SVCSD shall obtain and comply with a State Incidental Take Permit under Section 2081(b) of the California Fish and Game Code.

In addition, SVCSD shall ensure that all dewatering, relocation, seining, and electrofishing guideline activities comply with the terms and conditions of the NMFS BO that will include, but are not limited to, the following actions. Dewatering activities shall be in accordance with most recent NMFS criteria to limit the effects of species relocation (NMFS 2018; USFWS and NOAA 2022). Electrofishing can be used as an alternative fish capture method in accordance with Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act (NMFS 2000). If electrofishing is utilized, the qualified biologist overseeing the aquatic species relocation shall have the appropriate training and experience. A qualified fisheries biologist shall perform all seining, electrofishing, and fish relocation activities. A qualified fisheries biologist is an individual who must have a minimum of five years of academic training and professional experience in

biological sciences and related resource management activities with a minimum of two years conducting surveys or relocating salmonids. Resumes must be submitted to National Marine Fisheries Service 30 days prior to commencement relocation activities. Sonoma Water may also utilize appropriately experienced and/or trained environmental staff. Resumes shall be submitted to CDFW, USFWS and/or NMFS, as appropriate, for approval prior to commencement of biological surveys.

California Freshwater Shrimp

California freshwater shrimp typically shelter near the edges of stream pools and under streambanks, exposed root material, and submerged leafy branches (USFWS 2023). Suitable and occupied habitat for California freshwater shrimp is present in Sonoma Creek through the project site; however, Kohler Creek does not provide habitat for the species. In-channel and on bank construction in Sonoma Creek could impact California freshwater shrimp, if shrimp are present in the project site during construction. Shrimp could be directly affected by activities that disturb the stream channel and streamside vegetation along Sonoma Creek. Shrimp could be harassed, injured or killed during installation of coffer dams or similar water diversion structures, during dewatering, site grading, and placement of materials (PCI 2023). Shrimp may also become entrained in water pumps during the dewatering process. Relocating shrimp out of the project area to suitable habitat upstream or downstream could also harass, injure, or kill shrimp during the handling process. This impact could be significant.

Habitat quality for California freshwater shrimp along the bank of Sonoma Creek through the project area is poor because the bank is eroded and supports little overhanging vegetation and other habitat used by shrimp. However, aquatic habitat in the channel is higher quality. Dewatering of Sonoma Creek would result in temporary disturbance to 0.13 acre of California freshwater shrimp habitat. Open water areas, streambanks, and in-stream vegetation would be temporarily impacted during the dewatering through locations where shrimp may be residing. Dewatering of Sonoma Creek would also limit downstream and upstream movement of shrimp for the duration of that phase of construction and might result in increased exposure to predators due to concentration near cofferdams. The dewatering effects would be temporary, as flows through the site would be restored following construction and the bypass pipeline would be in place during construction. Impacts on California freshwater shrimp could be significant.

Implementation of the Proposed Project would improve habitat conditions for California freshwater shrimp through habitat enhancement and increases in vegetated cover along the currently degraded and eroding streambank. The streambank is void of vegetation in most areas and the emergency repair included placement of a K-rail and rock to stabilize the site. The Proposed Project includes installation of large wood and root wads and log revetments along the bank that would stabilize the banks and provide increased cover for

shrimp to use. The log revetment is designed for the dual function of bank protection and improving California freshwater shrimp habitat. The log revetment would include placement of logs parallel to the bank with rootwads anchored perpendicular to the channel; this would encompass approximately 1,850 square feet along the bank. The logs would increase streambank complexity by creating undercuts and over hanging rootwads. The site would also be planted with willow and dogwood to increase shade and fine roots in the stream. Rock would be placed on the bank at the confluence with Kohler and Sonoma creeks to stabilize the area. Dogwood and willow would be planted between the rocks during rock placement to provide additional shade and cover. The wood structures and plantings would improve habitat for California freshwater shrimp over existing conditions by providing high flow refugia, predator avoidance, and improved foraging habitat. The condition of the site following implementation of the Proposed Project would have a net permanent benefit on California freshwater shrimp habitat by reducing the potential for further bank erosion and by providing immediate habitat elements that currently are not present through the project area.

Implementation of Mitigation Measure BIO-3: Protect California Freshwater Shrimp would reduce construction-period impacts to California freshwater shrimp to less than significant levels by educating the construction team in the identification and protection of California freshwater shrimp and by properly relocating shrimp out of the dewatered reach to a suitable location outside of the project site.

Mitigation Measure BIO-3: Protect California Freshwater Shrimp

The Sonoma Valley County Sanitation District (SVCSD) shall ensure that all dewatering activities comply with the terms and conditions of the project-specific USFWS BO for California freshwater shrimp and the Incidental Take Permit from the California Department of Fish and Wildlife. These measures are likely to include the following based on the USFWS 2022 Programmatic Biological Opinion for California freshwater shrimp; additional measures may be required by California Department of Fish and Wildlife:

1. The work area shall be isolated and all the flowing water upstream of the work site shall be temporarily excluded from entering the work area.
2. Pump intake structures used for dewatering will be placed away from complex vegetated banks and completely screened with wire mesh not larger than five millimeters to prevent shrimp from entering the pump system. Water will be released or pumped downstream, at an appropriate rate, to maintain downstream flows during construction.
3. Debris, soil, silt, excessive bark, rubbish, creosote-treated wood, raw cement/ concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, resulting from projected related activities,

will be prevented from contaminating the soil and/or entering the water. Any of these materials, placed within or where they may enter the stream, must be removed immediately. During project activities, all trash that may attract potential predators of California freshwater shrimp will be properly contained, removed from the work site, and disposed of daily.

4. No work is permitted during wet weather or where saturated ground conditions exist; if a 60 percent chance of 0.5 inches of rain, or more, within a 24-hour period is forecast, then operations will cease until 24 hours after the rain has ceased.
5. At least 15 days prior to the onset of activities, the name(s) and credentials of biologists who will conduct the California freshwater shrimp activities specified in the following measures will be submitted to the USFWS and CDFW. No project activities would begin until written approval from both CDFW and USFWS that the biologist(s) is qualified to conduct the work is received. A qualified biologist is an individual who shall have a minimum of five years of academic training and professional experience in biological sciences and related resource management activities with a minimum of two years conducting surveys for California freshwater shrimp. Resumes must be submitted to CDFW and U.S. Fish and Wildlife Service 30 days prior to commencement of biological surveys.
6. The CDFW and USFWS-Approved Biologist shall be given the authority to freely communicate verbally, by telephone, electronic mail, or in writing at any time with construction personnel, any other person(s) at the Project Site, otherwise associated with the project, USFWS, CDFW, or their designated agents. The monitor and the CDFW and USFWS-approved biologist will have the authority to halt any action that might result in impacts that exceed the levels anticipated by CDFW and USFWS during review of the proposed action. If the biologist exercises this authority, USFWS shall be notified by telephone and electronic mail within twenty-four (24) hours.
7. Before any construction activities begin on the project, a CDFW and USFWS-Approved Biologist will conduct a training session for all construction personnel (See Mitigation Measure BIO-1). At a minimum, the training will include a description of the California freshwater shrimp and its habitat, the importance of the California freshwater shrimp and its habitat, the general measures that are being implemented to conserve the California freshwater shrimp as they relate to the project, and the boundaries within which the project may be accomplished. Personnel will also be instructed on the penalties for not complying with avoidance and minimization measures. If new construction personnel are added to the project, the

contractor will ensure that the personnel receive the training before starting work.

8. A CDFW and USFWS-approved biologist will be present at the work site until such time as all California freshwater shrimp are removed, instruction of workers is complete, and creek dewatering or diversion has been completed. After this time, the CDFW and USFWS-approved biologist will designate a person to monitor on-site compliance with all minimization measures. The CDFW and USFWS-approved biologist will ensure that this individual receives training in the identification of California freshwater shrimp and their habitat.
9. Only CDFW and USFWS-approved biologists will participate in the capture, handling, and monitoring of California freshwater shrimp. The CDFW and USFWS-approved biologist will report the number of captures, releases, injuries, and mortalities to CDFW and USFWS within 30-days of the activities.
10. Prior to the installation of any water diversion structures, removal of existing fill, and placement of new fill, the CDFW and USFWS-approved biologist will perform surveys for any shrimp trapped in the project area, collect, and transfer them to the nearest suitable habitat outside of the work area. During holding and transportation, shrimp will be held in stream water collected from the site. The following procedures will be used to relocate California freshwater shrimp:
    - Prior to dewatering and after barrier seines have been placed up- and downstream of the project area (to prevent additional aquatic species from entering the work area), all California freshwater shrimp will be relocated from the dewatering area. Shrimp will be removed from the dewatering area with the use of submerged hand-held nets (e.g., heavy-duty aquatic dip nets [12-inch D-frame net] or small minnow dip nets). All suitable habitat will be sampled by netting all roots and vegetation along the side of the stream, under large wood structures, etc. Any shrimp captured should be immediately transferred to an aerated container (see below). A second sweep through the sampled area should occur immediately to collect any shrimp that might have moved into open water when they were dislodged by the passage of the net. Following each sweep, the contents of the net should be emptied into an aerated container (see below). No California freshwater shrimp will be placed in buckets containing other aquatic species. Any potential predators captured should be placed in separate containers to avoid predation of California freshwater shrimp.

- All shrimp will be kept in containers such as 5-gallon utility buckets, 7.3 quart or 5-gallon Cool Bubbles Insulated Bait Saver™ buckets, or plastic terrariums, as appropriate. All containers should be outfitted with lids to prevent shrimp from jumping out of the container. All containers should be outfitted with aerators (e.g., Marin Metals Product™ Bubbles air pump) and kept in the shade with cool fresh water until the animals can be processed. Water temperatures in the containers should be kept cool and in the shade.
- Captured California freshwater shrimp will be immediately relocated out of the work area in the net or placed in buckets containing stream water, and moved directly to the nearest suitable habitat in the same branch of the creek. To minimize holding time, suitable habitat will be identified prior to capturing California freshwater shrimp. Suitable habitat is defined as creek sections that will remain wet for the entirety of the summer and provide the following criteria throughout the summer:
  - Water depths of 1 foot or more with large woody debris protruding into the channel.
  - Streambanks with presence of hair like fine roots, or coarse roots >0.5 cm in diameter that extend into the wetted channel.
  - Undercut banks (>6 inches) along the stream containing blackberries, dogwood or an abundance of herbaceous vegetation with roots or vegetation that extends into the water.
- Once the CDFW and USFWS-Approved Biologist has determined that all shrimp have been effectively relocated, barrier seines or exclusion fencing with mesh no greater than 5 millimeters will be installed to prevent shrimp from moving back in, as appropriate.

Special-status Amphibians and Reptiles

California Giant Salamander

California giant salamanders are known to occur in Sonoma Creek, and suitable habitat for California giant salamanders is present within the project area. This salamander may be present year-round within Sonoma Creek and in nearby woodlands (PCI 2023). Sonoma Creek supports perennial stream flows that are required for successful breeding and larval development, and the woodlands outside the project area may support non-breeding upland habitat. Kohler Creek does not support the site conditions or perennial flow needed to provide salamander habitat. There is a high potential for salamanders to be present in Sonoma Creek during construction. If a California giant salamander is

present in the project site during construction, individuals may be harmed, or mortality could occur, and the impact could be significant.

Foothill yellow-legged frog

Suitable habitat for foothill yellow-legged frog is present within the project area. Frogs may be present year-round in Sonoma Creek and the riparian areas directly adjacent to the creek. The project area supports habitat elements that may support year-round habitat including successful breeding (e.g., rocky stream bottoms, adequate stream flows). Because this species does not venture far from the stream corridor, if present, frogs would mostly be encountered within Sonoma Creek and the immediate margins including within the project site. Due to stream flow conditions in Kohler Creek, frogs may only be present seasonally. This site will most likely be dry during construction and the potential for frogs at this site is low. There is moderate potential for frogs to be encountered during instream work in Sonoma Creek given the flow and habitat conditions. If a foothill yellow-legged frog is present in the project site during construction, individuals may be harmed, or mortality could occur and the impact could be significant.

Red-bellied Newt

Suitable habitat for red-bellied newt is present within the project area. Newts may be present year-round in Sonoma Creek and the riparian areas directly adjacent to the creek. The project area supports habitat elements that may support year-round habitat including successful breeding (e.g., rocks and roots within creek, adequate flows). Due to stream flow conditions in Kohler Creek, newts may only be present seasonally in the creek. However, there is moderate potential for newts to be encountered during instream work in Sonoma Creek given the flow and habitat conditions. If a red-bellied newt is present in the project site during construction, individuals may be harmed, or mortality could occur and the impact could be significant.

Western Pond Turtle

Suitable habitat for pond turtles is present within the project area. Pond turtles could use Sonoma Creek seasonally for foraging and basking and during migration when moving through the Sonoma Creek from nearby habitats. There is limited habitat for turtles in Kohler Creek due to the intermittent nature of flows and the barrier at the Arnold Drive crossing. Due to the steep banks and composition (rocked areas, woody vegetation) pond turtles are not likely to nest within the project site. The open staging area is elevated above the creek and does not support accessible nesting habitat. Nonetheless, there is moderate potential for turtles to be encountered during instream work in Sonoma Creek. Turtles could be harmed during construction if they are present at the site. Habitat conditions for pond turtles may be improved through installation of log revetments along Sonoma Creek, improving cover and providing potential basking sites.

The Proposed Project would include construction and maintenance activities that have the potential to adversely impact special-status amphibians and reptiles if they are

present in Sonoma Creek during construction activities. Temporary disturbance would occur during dewatering activities within Sonoma Creek. Up to 250 feet of channel would be affected for a total area of 0.13 acre of aquatic creek habitat.

Implementation of Mitigation Measure BIO-4 requires a qualified biologist survey the Proposed Project area and relocate California giant salamander, foothill yellow-legged frog, red-bellied newt, and other wildlife if present in the project area. The measure also includes training that would increase worker awareness and understanding of the species that may be present in the project area. These measures would reduce impacts to special-status amphibians and reptiles to less than significant levels.

Mitigation Measure BIO-4: Protect Special-status Amphibians and Reptiles
The Sonoma Valley County Sanitation District (SVCSD) shall ensure aquatic wildlife species are protected during project construction through surveys, worker education, and aquatic species relocation as follows:

- A qualified biologist(s) shall oversee the implementation of the following protection measures. SVCSD may also utilize appropriately experienced and/or trained environmental staff. A qualified biologist (including those specializing in botany, wildlife, and fisheries) is an individual who shall have a minimum of five years of academic training and professional experience in biological sciences and related resource management activities with a minimum of two years conducting surveys for each species that may be present within the Proposed Project site. Resumes shall be submitted to California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and/or National Marine Fisheries Service, as appropriate, for approval prior to commencement of biological surveys. The qualified biologist(s) should have all the necessary permits and experience as determined by the regulatory agencies.
- A pre-construction survey shall be conducted no more than 48 hours prior to commencement of construction activities by a qualified biologist. If special-status species are observed within the work area or immediate surroundings, these areas shall be avoided until the animal(s) has (have) vacated the area and/or the animal(s) are relocated out of the project area by a qualified biologist with regulatory agency approval.
- The work area shall be surveyed weekly during construction to ensure that no special-status species are impacted by construction activities. If species are observed within the project site or immediate surroundings, these areas shall be avoided until individuals have vacated the area or relocated out of the project area. If special-status species have re-entered the previously cleared work site, a qualified biologist shall remove special-status species from the work area and guide placement of exclusion fencing, if needed, to

avoid species re-entry into the work area. The qualified biologist or designated trained monitor will notify the onsite construction inspector to stop work if a protected species is encountered until such a time as the animal may be moved to an area outside of the project area.

- A qualified biologist shall complete a preconstruction training session for all construction crew staff see Mitigation Measure BIO-1. The training shall include a discussion of the sensitive biological resources within the project site and the potential presence of special-status species. This shall include a discussion of special-status species' habitats, protection measures to ensure species are not impacted by project activities, project boundaries, biological conditions outlined in the project permits, and procedures to follow if sensitive wildlife species are found.
- SVCSD shall prepare a Special-Status Aquatic Species Relocation Plan prior to relocating aquatic species out of construction or maintenance areas. The Special-Status Aquatic Species Relocation Plan shall be submitted to California Department of Fish and Wildlife for approval prior to commencement of relocating aquatic species out of construction or maintenance areas. The relocation plan at a minimum shall include the following:
    1. Qualifications of individuals conducting relocation activities, including documented experience with successful relocations for the relevant species and all required authorizations. A qualified biologist (including those specializing in botany, wildlife, and fisheries) is an individual who shall have a minimum of five years of academic training and professional experience in biological sciences and related resource management activities with a minimum of two years conducting surveys for each species that may be present within the Proposed Project site;
    2. Life stages (juveniles and adults) of the aquatic species that would be relocated if they are present, and life stages at which relocation may not be feasible, for example, for eggs and associated avoidance measures;
    3. Survey methods for identifying special-status species in the project area, which are anticipated to include dipnetting, seining, and electrofishing;
    4. Capture and relocation methods, including dipnetting, seining, and electrofishing, including following the Restraint and Handling of Live Amphibians Standard Operation Procedures, prepared by USGS, dated February 16, 2001;

5. Identification and description of the relocation area using the following criteria for selecting relocation sites: proximity to the work area, similar water temperature as capture location, ample habitat availability prior to release of captured aquatic species, and low likelihood of animals reentering work site;
6. Description of potential impacts from the proposed electrofishing to non-fish species, and methods for minimizing such impacts;
7. Monitoring of water quality and health of relocated animals;
8. Method for ensuring relocated animals do not return to the Project area, such as location of block nets or cofferdams, which will be determined in the field based on wetted conditions onsite at the time of project construction; and
9. The Special-Status Aquatic Species Relocation Plan shall be submitted to California Department of Fish and Wildlife for approval prior to commencement of relocating aquatic species out of construction or maintenance areas.

Bats

Pallid Bat

Pallid bats occur in grassland, shrubland, forest, and woodland habitats at low elevations up through mixed coniferous forests. They are most commonly found in open, dry habitats with suitable rocky areas for roosting. This species can also be found roosting in caves, crevices, mines, hollow trees, and buildings during the day. Night roosts generally consist of more open areas such as porches and open buildings. Pallid bats are known throughout Sonoma County. The nearest reported occurrence is from Jack London State Historic Park; a maternity colony was documented in 2003 (CDFW 2022a). This sighting is 1.5 miles west of the project area. Additional pallid bat sightings are reported over five miles from the project area. Suitable foraging and roosting habitat for pallid bat is present within the project area. The site support suitable foraging habitat and invertebrate food sources are likely to be abundant. Bats may roost in the few individual large trees, especially in tree hollows and crevices.

Mature trees provide suitable roosting habitat for pallid bats and common bat species, and there are mature trees in the project area. Bats may also forage over the project area. However, no mature trees would be removed to implement the project and no nighttime construction is proposed; therefore, there would be no impacts to bats during project construction or maintenance and no protection measures are proposed.

Birds

Northern Spotted Owl

Northern spotted owls (NSO) are known to occur in forested habitats throughout Sonoma County. Established northern spotted owl territories are reported in Jack London State Historic Park and on adjacent private lands in forested habitats on the eastern slopes of Sonoma Mountain (PCI 2023, CDFW 2022). There are documented sightings within 2 miles of the project area; however, there is no suitable habitat for spotted owls within or immediately adjacent to the project area. There are no known NSO occurrences reported within approximately 1.5 miles of the project site.

Although there are no reported occurrences of northern spotted owl nesting within 1.5 miles of the project site, potential impacts to northern spotted owl nesting could occur if a nest is present in an area closer to the Proposed Project location. PCI (2023) notes that research indicates spotted owls are sensitive to noises above ambient background within 0.25 miles of their foraging range or nesting habitat. The Proposed Project area lies in close proximity to residential development, roadways, and high levels of human activity and vegetation consists of oak woodland, riparian forest, vineyards, and developed spaces. Northern spotted owls are unlikely to be present in the project area or in the surrounding 0.25 mile given the lack of nesting and forging habitat and given the existing development in the area; therefore, the impact to NSO from the construction, operation, and maintenance of the Proposed Project would be less than significant and no mitigation is required.

Nesting Birds

Nesting native bird species are protected under both federal and State regulations. Breeding birds are protected under the Migratory Bird Treaty Act, California Fish and Game Code Sections 3503 and 3503.5, and federal and State Endangered Species Acts (if the species is federally or State-listed). Potential habitat for nesting birds is supported within and adjacent to the project area. The area around the project may also support potential breeding/wintering/foraging habitat for a number of native bird species though no nests were observed during site visits in 2021. Construction and maintenance activities would occur during nesting season, which could affect nesting birds, including the Bullock's oriole. Potential impacts on nesting birds that could result from project construction activities include the destruction of eggs or occupied nests, mortality of young, and the abandonment of nests with eggs or young birds prior to fledging. Construction activities could also remove the nesting habitat through direct nesting habitat removal or could result in disruption of breeding due to construction noise. Such potential construction- or maintenance-related impacts on nesting birds could be significant.

Implementation of Mitigation Measure BIO-5: Special-status and Nesting Bird Protection would reduce potential impacts on migratory birds and nesting birds to less than significant levels. The mitigation measure would require pre-construction surveys by a

qualified biologist to determine whether migratory birds or bird nests are present in or near the project site and would provide an appropriate distance between the proposed construction and maintenance activities to protect nests.

Mitigation Measure BIO-5: Protect Nesting Birds
The Sonoma Valley County Sanitation District (SVCSD) shall ensure nesting birds are protected during project construction through implementation of the following measures:

- If construction or maintenance activities must be scheduled during the nesting season (February 15 through August 15 for most birds), a qualified biologist, familiar with the species and habitats in the area, will conduct pre-construction surveys for raptors within suitable habitat within 500 feet of construction and maintenance activities and passerine nesting birds within 50 feet of construction and maintenance activities. The surveys shall be conducted no more than one week before initiation of construction or maintenance activities. If no active nests are detected during surveys, activities may proceed. Vegetation removal activities will be conducted under the guidance of a qualified biologist or designated trained monitor.
- If active nests are identified in the project area, non-disturbance buffers shall be established at a distance of 500 feet for raptors and 50 feet for all other bird species. Buffer distance may be adjusted with CDFW approval if the adjustment will not disturb birds. If active nests are found within 500 feet of a work area, a qualified biologist shall be on site as necessary to monitor the nests for signs of nest disturbance. If it is determined that construction or maintenance activity is resulting in nest disturbance, work shall cease immediately and CDFW shall be contacted. Buffers will remain in place until a qualified biologist determines that the young have successfully fledged, or nests have been otherwise abandoned.

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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
Less than Significant

Sensitive plant communities are those that are of limited distribution statewide or within a county or region, those that are particularly threatened by human activity, or those that provide especially important ecological functions. The California Department of Fish and Wildlife's List of California Terrestrial Natural Communities and the Manual of California Vegetation indicate which plant communities are sensitive within California. Within the project area, the California bay forest and riparian forest are two communities that are considered sensitive.

The Proposed Project area is within the oversight of the Sonoma County General Plan 2020 (Permit Sonoma 2016). The plan requires protection of several natural communities. Relevant goals and objectives include:

1) Objective OSRC-7.1, Identify and protect native vegetation and wildlife particularly occurrences of special-status species, wetlands, sensitive natural communities, woodlands, and areas of essential habitat connectivity; and
2) Goal OSRC-8: Protect and enhance Riparian Corridors and functions along streams balancing the need for agricultural production, urban development, timber and mining operations, and other land uses with the preservation of riparian vegetation, protection of water resources, flood control, bank stabilization, and other riparian functions and values.

The vegetation along the banks surrounding the project site are well vegetated with a healthy riparian forest and California bay forest; however, the existing vegetation at the project site is sparse. Vegetation removal to accommodate construction would be limited because existing streambank erosion has limited the amount and extent of vegetation in the work area.

Two trees bay trees would be removed from a small fragment of native habitat along the stream bank near the confluence of Kohler and Sonoma creeks. These trees would be replaced as part of the Proposed Project as show in Table 2: Proposed Revegetation Plant Palette. The project would have an overall positive effect on sensitive riparian forest in this area.

The Proposed Project would be consistent with the County of Sonoma General Plan 2020 goals, objectives, and policies discussed above because of the limited vegetation removal during construction and the benefits of the revegetation components of the Proposed Project.

The Proposed Project would benefit sensitive habitats by repairing and revegetating a failing streambank while stabilizing the area around the existing buried sewer pipelines. The native revegetation would replace vegetation removed as part of construction and provide native vegetation cover for areas that are currently void of vegetation. The Proposed Project is not expected to result in substantial adverse effects on sensitive natural communities identified in local or regional plans, policies, regulations, or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. The impacts would be less than significant.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct

removal, filling, hydrological interruption, or other means? *Less than Significant with Mitigation*

Water features are protected under several State and federal regulations and agencies. Wetlands, creeks, streams, and permanent and intermittent drainages are subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps) under Section 404 of the Federal Clean Water Act (CWA). The California Department of Fish and Wildlife generally has jurisdiction over creeks, streams, and drainages, together with other aquatic features that provide an existing fish and wildlife resource pursuant to Sections 1602-1603 of the California Fish and Game Code. The California Department of Fish and Wildlife asserts jurisdiction to the outer edge of vegetation associated with a riparian corridor. Creeks and wetlands are subject to regulation of the Regional Water Quality Control Board (RWQCB) under both the federal CWA and the State of California's Porter-Cologne Water Quality Control Act (California Water Code, Division 7).

Kohler and Sonoma creeks are both jurisdictional and the Proposed Project would occur within the bed and banks of both channels. Fill in waters of the United States (U.S.) and waters of the State under the jurisdiction of U.S. Army Corps of Engineers, the San Francisco Bay Regional Water Board, and/or the California Department of Fish and Wildlife would occur during construction and maintenance activities of the Proposed Project as described above.

The Proposed Project would permanently add engineered streambed material to Kohler Creek to raise the level of the streambed to cover and protect the existing pipeline. Approximately 110 cubic yards of rock would be placed in the channel bed, and approximately 3 cubic yards of concrete, and 140 cubic yards of fabric reinforced earth fill (FREF) would be placed along the banks of Kohler Creek to stabilize the slopes and provide sites to plant and revegetate the area. Some of the rock used for construction would come from the reuse of rock placed during emergency repairs completed in 2019.

The Proposed Project would temporarily disturb up to 250 feet or 0.13 acre of Sonoma Creek during dewatering activities within Sonoma Creek. Rock and other material would be placed in the channel and along the streambanks to stabilize the area and protect the existing sewer pipeline that crosses Sonoma Creek. The Proposed Project would permanently replace bed substrate with large rock across 350 square feet of jurisdictional stream at the upstream and downstream side of the existing siphon across Sonoma Creek to the west bank within the dewatered area of the stream channel. Large rocks would be placed along the siphon to prevent scour and undercutting around the pipeline.

Large boulders would be placed along the bank of Sonoma Creek through the project reach as part of the log revetments and at the confluence of Sonoma and Kohler creeks to prevent future streambank scour. Although the use of rock would be minimized to only the amount needed to stabilize the streambank to meet project objectives, rock placement

would permanently fill approximately 2,025 square feet (0.046 acre) of existing aquatic habitat along the channel bank. Approximately 45 cubic yards of rock would be placed in the channel around the siphon, and an additional 380 cubic yards of boulders, rock, redwood logs, and redwood root wads would be placed along the toe of the streambank to stabilize the bank and provide improved aquatic habitat for salmonids, California freshwater shrimp, and other aquatic species. Some of the rock used for construction would come from the reuse of rock placed during emergency repairs completed in 2019. A total of 193 cubic yards of fabric reinforced earth fill would be placed along the banks of Sonoma Creek to stabilize the slopes and to provide sites to plant and revegetate the area.

Table 3: Fill Quantities within the Bed and Banks of Sonoma and Kohler Creeks

	Temporary (cubic yards)	**Temporary Area (square feet)**	**Permanent (cubic yards)**	**Permanent Area (square feet)**
Kohler Creek		**250**		**1,910**
Flow Diversion, instream construction material	17	250		
Rock (various sizes) for roughened ramp to cover pipeline, concrete			174 cy	1,140
Fabric Reinforced earth fill (FREF) Erosion control blanket/mat & pins, Soil/compost/Revegetation			56 cy	770
Sonoma Creek		**300**		**5,181**
Flow Diversion, instream construction material	17	300		
Rock (various sizes) to cover siphon pipeline, Concrete			48 cy	350
Rock (various sizes) for rock slope protection			58 cy	275
Large Wood Revetments (Redwood logs and rootwads, boulders, and rocks)			319 cy	1,850
Fabric Reinforced earth fill (FREF) (Erosion control blanket/mat & pins, Soil/compost/Revegetation)			361 cy	2,706
Brush Mattress (rock and willow poles)		860	58	860

Although the project designs minimize impacts within jurisdictional waters to the maximum extent feasible, the Proposed Project would result in the addition of fill within jurisdictional waters. The fill amount would be only the amount necessary to meet the

project goals to stabilize the area and reduce the threat of continued streambank erosion and potential loss of the existing sewer pipeline and the associated infrastructure. The impact could be significant.

Implementation of Mitigation Measure BIO-6: Avoid, Minimize, or Compensate for Impacts to Jurisdictional Waters, would reduce impacts resulting from temporary disturbance and permanent fill in waters of the U.S. and waters of the State to less than significant levels by minimizing disturbance to the maximum extend feasible and through compensating for the permanent fill that cannot be avoided.

Mitigation Measure BIO-6: Avoid, Minimize, or Compensate for Impacts to Jurisdictional Waters

- The Sonoma Valley County Sanitation District will secure necessary permits from the U.S. Army Corps of Engineers pursuant to Section 404 of the federal Clean Water Act, a Section 401 Clean Water Act Water Quality Certification from the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), and Lake and Streambed Alteration Agreement with the California Department of Fish and Wildlife. SVCSD shall comply with all permit conditions including any requirements to account for the temporal and permanent disturbance and fill within waters of the U.S. and waters of the State.

  Compensation for temporary disturbance and permanent discharge of fill into jurisdictional waters could occur in several ways: 1) work with the regulatory agencies to determine if the enhancement of the site through stabilization of the eroding streambank and revegetation efforts associated with the Proposed Project provide sufficient on-site mitigation; 2) implement off-site riparian revegetation and invasive species management to provide sufficient off-site mitigation; or 3) implement a combination of on-site and off-site mitigation.

  On-site and off-site enhancement may include one or more of the following: increasing native plant species abundance within the area impacted, managing invasive plants, installing native wetland vegetation on or offsite, and/or acquiring credit from an approved wetland mitigation bank. The appropriate mitigation ratio shall be negotiated with the USACE and SFBWQCB. The enhancement effort shall require implementation of a five-year monitoring program with applicable performance standards negotiated with the resource agencies, which will include criteria such as establishing 80 percent survival rate of restoration plantings, increase in vegetative cover by native plant species, and a self-sustaining habitat condition.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? *Less than Significant*

Wildlife corridors are described as pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or manmade obstacles such as urbanization.

Habitat linkages are broader stretches of open space that allow for the movement of multiple species and maintenance of ecological processes. These linkages do not have to provide continuous habitat but could also be patches of suitable areas that support movement from one patch to another to allow dispersal and migration. Habitat linkages reduce the adverse effects of habitat fragmentation that can lead to decreased gene flow for small animals, such as amphibians, reptiles, and rodents.

Native wildlife nursery sites are specific areas where certain species return yearly to breed, birth, and rear juveniles.

Fish and wildlife use Sonoma Creek corridor for movement and migration, and may use Kohler Creek in a similar yet limited capacity due to the Arnold Drive road and culvert that is a barrier to fish passage. The Proposed Project would retain the function and use of Sonoma Creek's wildlife corridor through the project site; however, wildlife and fish use of the reach through the project site would be temporarily disrupted during construction and may be limited during maintenance activities. The Proposed Project work schedule, June 15 to October 15, is designed to minimize impact to the movement of native resident or migratory fish species, including federally listed California Central Coast steelhead, by restricting work to the dry season when migration is limited in Sonoma Creek. The upstream and downstream movement of fish would be restricted following the installation of coffer dams or other dewatering methods during project construction and may be restricted during maintenance activities depending on the type of maintenance necessary. The impacts associated with dewatering on the migration of fish through the work area would be less than significant because most fish migrate and disperse during late fall to spring during times when construction and maintenance would not occur. Use of the bypass pipeline would be short duration and would remain in operation only for the minimum amount of time necessary for construction to occur. Any bypass pipeline would allow downstream movement of aquatic species while semi-aquatic reptiles and amphibians would avoid use of the bypass and disperse around the construction area. The construction period, including use of the bypass pipeline, would occur outside the adult steelhead migration period and outside the migration period for most aquatic animals. In addition, the lack of access through the project area would be temporary in nature (only during construction and maintenance) and would not be a long-term condition.

Terrestrial wildlife access through the project area along Kohler Creek would be limited during the construction period. Fish and aquatic species would not be present at the site during the summer construction period; therefore, implementation of the Proposed Project would not interfere with the movement of native resident or migratory fish or wildlife species, with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. The impact would be less than significant, and no additional mitigation measures would be required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? *No Impact*

The project area is located within unincorporated Sonoma County, and the area is governed by the Sonoma County General Plan 2020 (Permit Sonoma 2016). The General Plan contains goals and policies to protect natural resources and manage invasive species and the spread of plant pathogens. Ordinance 6089 of the Sonoma County Zoning Code protects riparian corridors and functions along designated streams. Development setbacks of 50 to 200 feet are designated along most creeks and rivers outside of city boundaries. Prohibited activities within setbacks include grading, vegetation removal, agricultural cultivation, structures, roads, utility lines, and parking lots. Allowable land use and activities are described in Section 26-65-040 of the ordinance including “stream maintenance and restoration carried out or overseen by the Sonoma County Water Agency.” The Proposed Project would stabilize streambanks, protect existing sewer pipeline system, and comply with all zoning codes protecting riparian and stream corridors.

The Proposed Project would require removal of two trees and would protect the remaining riparian vegetation in the riparian corridor along Kohler Creek and enhance the condition of the riparian corridor along Sonoma Creek. There would be no conflict with county policies and ordinances protecting biological resources; therefore, there would be no impact.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? *No Impact*

Habitat Conservation Plans (HCPs) are planning documents required as part of an application for an incidental take permit. They describe the anticipated effects of the proposed take; how those impacts would be minimized or mitigated; and how the HCP is to be funded. HCPs can apply to both listed and non-listed species, including those that are candidates or proposed for listing. An HCP can apply to individual projects that affect a limited number of species or can be regional plans to address endangered species impacts in an area from otherwise legal development.

A Natural Community Conservation Planning program (NCCP) takes a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity. It is broader in its orientation and objectives than the California and federal Endangered Species Acts, as these laws are designed to identify and protect individual species that have already declined in number significantly. An NCCP identifies and provides for the regional protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity.

There are no adopted HCPs or NCCPs in or near the Proposed Project area, and therefore, implementation of the Proposed Project would not conflict with an adopted HCP, NCCP, or other approved local, regional or state habitat conservation plan. No impact would occur.

3.5 Cultural Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historic resource pursuant to §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 formal cemeteries?	☐	☒	☐	☐

3.5.1 Setting

Cultural and Historical Resources Studies

Evans & De Shazo, Inc. conducted a Historic Property Survey (HPS) of the project area and prepared a report for the Proposed Project in 2022 (Evans & De Shazo 2023). The study included a cultural resources literature search completed at the Northwest Information Center of the California Historical Resources Information System (CHRIS), additional records search and literature review, initial Native American Consultation with the Native American Heritage Commission and outreach to Tribal representatives, and an archaeological survey of the project area. Much of the setting information and environmental impact analysis is based on information contained in the study.

The HPS did not result in the identification of any historic properties within the project area; however, one previously recorded cultural resource and one newly identified cultural resource (a culvert/bridge structure) were identified adjacent to and to the west of the project area (Evans & De Shazo 2023). The newly identified cultural resource abuts the Proposed Project at the upper end of the project area in Kohler Creek.

The Native American Heritage Commission responded that there are no sacred sites within the vicinity of the study area. The NAHC also provided a list of eleven Native American tribal contacts. As recommended by NAHC, Evans & De Shazo sent a letter to all eleven tribal contacts in February 2022 to request further information about Sacred Sites, Traditional Cultural Tribal Resources, or other properties of traditional religious and

cultural importance located within or near the project site, and to inquire about Native American issues related to the Proposed Project.

On February 18, 2022, Evans & De Shazo received a response from Brenda Tomaras of Tomaras & Ogas, LLP, on behalf of Lytton Rancheria via email. To summarize, the Lytton Rancheria believes that the Proposed Project falls within traditional Pomo territory and that there is a potential for finding tribal cultural resources on the project site. Lytton Rancheria requested a copy of the HPS once complete to determine whether further consultation on the Proposed Project with the appropriate lead agency is necessary. On February 18, 2022, Evans & De Shazo forwarded the email request from Lytton Rancheria to the Sonoma County Water Agency. On April 27, 2022, Evans & De Shazo received a response from Buffy McQuillen, THPO at the Federated Indians of Graton Rancheria (FIGR) via email. The response stated that the project area is within the FIGR's ancestral territory and that there may be tribal cultural resource impacts; therefore, the FIGR requested the results of the HPS and recommendations.

On April 28, 2022, Evans & De Shazo emailed a copy of the draft HPS report to FIGR for review and comment. As of the date of this Draft IS/Proposed MND, no additional comments have been received from Lytton Rancheria or FIGR, nor have any other responses been received from any of the remaining tribes that were contacted by Evans & De Shazo.

Evans & De Shazo concluded that no historic property would be affected by the Proposed Project because the project would not change or otherwise affect the culvert/bridge structure, the headwalls, wing walls or other component of the structure. As a result, the study does not provide any project-specific recommendations. However, general recommendations were provided in the event that previously undiscovered buried archaeological resources were encountered during implementation of the Proposed Project. If an archaeological deposit were encountered, all work within 50 feet of the discovery would stop until a qualified archaeologist evaluates the find and provides recommendations for further treatment, if warranted. Construction and potential impacts to the area(s) within a radius determined by the archaeologist shall not recommence until the assessment is complete. Similar recommendations are made for the potential discovery of human remains. These recommendations have been added as mitigation measures in the impact evaluation below.

Project Area History

The concept of prehistory refers to the period before events were recorded in writing and varies worldwide. Because there is no written record, our understanding of California prehistory relies on archaeological materials and oral histories passed down through generations.

Evans & De Shazo report on findings made by Archaeologist David Fredrickson who provided a chronology that forms the framework many archaeologists use to interpret and define Sonoma County prehistory. Fredrickson defined three periods for the North Coast Ranges. These are the Paleoindian Period (ca. 10,000-6,000 B.C.); the Archaic Period (6,000 BC - AD 500) that is divided into the Lower Archaic (6,000-3,000 BC), Middle Archaic (3,000-1,000 BC), and Upper Archaic (1,000 BC - AD 500) periods; and the Emergent Period (AD 500-1,500).

Early occupants of the Sonoma County area appear to have had an economy based largely on mobile hunting and gathering. Sonoma County was inhabited during the Paleo-Indian period (10,000 – 6,000 B.C.) known by artifacts found in a few archaeological sites located in Sonoma County near the Laguna de Santa Rosa, Bodega Bay, and Warm Springs Creek dam, as well as along the coast of Mendocino County and in Lake County. Limited documentation notes populations consisted of small, highly mobile groups that practiced broad-spectrum hunting and gathering techniques. Paleoindian forgers near the project vicinity were focused on the use of lakes, wetlands, and riparian zones during this time.

Several sites in Sonoma County date to the Lower Archaic Period (6,000-3,000 B.C.) with artifacts representative of mobile hunting and gathering economy. Mobile foragers appeared to have resided in camps situated along marshes and on grasslands and utilized the surrounding uplands to take advantage of a wide array of resources available in those areas on a seasonal basis. As Lower Archaic Period, mobile foragers in the Santa Rosa area during the Middle Archaic Period resided in camps situated along marshes and on grasslands and utilized the surrounding uplands to take advantage of the wide array of resources available in those areas on a seasonal basis.

The Upper Archaic Period was characterized by cooler conditions accompanied by increased precipitation in northern and central California, which apparently resulted in more favorable conditions for human occupation. This period is characterized by a higher degree of sedentism. An advanced bone tool industry and numerous mortars and pestles, implying greater reliance of acorns, also characterize this period.

The Emergent Period is thought to be associated with a new level of sedentism, status ascription, ceremonial integration, and regional trade, as indicated by the presence of finished artifacts and food remains that could not be obtained locally. The North Bay became the “seat of innovation” during the Upper Emergent Period, as new ornament forms and technologies emerged, such as the bow and arrow, toggle harpoon, hopper mortar, clamshell disk beads, and steatite and magnesite beads and tubes. Shifts in technology, artifact types, and mortuary spread throughout the San Francisco Bay Area from north to south, which appears to indicate that an upward cycle of regional integration took place during this period; however, this cycle ended when the Russians and Spanish began to settle the region.

Ethnohistoric Setting

As indicated on ethnographic maps of the area, the project area is located near the intersection of territories occupied by three different Native American linguistic groups, including the Wappo, Pomo, and Coast Miwok. As noted in the Evans & De Shazo HPS, the project area may be within the aboriginal territory of speakers of the Coast Miwok language, Southern Pomo speakers, or the Wappo-speaking Huiluc tribelet (Evans & De Shazo, 2023).

The Wappo language was one of four members of the Yukian language family, a language family found only in California. Wappo linguistic boundaries extended through Napa Valley, reaching as far as Middletown to the northeast, and included portions of eastern Sonoma County as well as a small area of land south of Clear Lake. The main social unit of the Wappo was the bilateral kin group, and these groups congregated in town or village communities of up to three hundred people. The Wappo were “seasonal and inveterate travelers” who frequently moved to take advantage of a range of subsistence and exchange resources. Obsidian was a valuable resource for all prehistoric Californians, who used it to fashion spear points, arrowheads, knives, scrapers, and other cutting implements. Wappo villages were often located along major watercourses with houses made with a framework of willow poles bent inward and overlain on exterior by layers of grass.

Colonization occurred beginning in 1776 as the Spanish established missions in the area. The population of Wappo-speaking peoples was decimated due to the establishment of missions and the introduction of European diseases for which Indians had no immunity.

Historic Setting

The historic setting of the Sonoma Valley included the Spanish Period (1769-1821), the Mexican Period (1821-1848) and the American Period (Post 1848). During these times, settlers colonized portions of the Sonoma Valley. The Spanish expeditions traveled to the San Francisco Bay Area to search for suitable locations to establish missions. Legal commerce and established settlements occurred during the Mexican Period. The Presidio of Sonoma was established during this period along with settlements along the coast from Fort Ross to the present-day Sonoma County. Mariano Guadalupe Vallejo received land grants during this period and created a 67,000-acre rancho that stretched from the Petaluma River to Sonoma Creek and from San Pablo Bay north to near present-day Glen Ellen. The project area is in the northeastern portion of Vallejo’s 67,000-acre land grant.

The American Period is marked by the end of the Mexican American War in 1884. A massive influx of new settlers came to the area. Immigrants moved onto land they thought

was unoccupied and available to settle. Many Californios[5] were forced to sell their land and cattle to newly arriving American settlers. On February 18, 1850, California became a State of the Union, and twenty-seven counties were created, including Sonoma County, named from a Native American tribe whose village site was taken over by Father Altamira in 1823 to build the Sonoma Mission. Northern Sonoma County saw a growth in timber harvesting and agriculture during this period. Agriculture shifted to cattle ranching during the Civil War in the 1860s and after the Civil War, the demand for wool increased and Sonoma County became a leading wool producer along with a variety of other agricultural products. The wine industry expanded in the 1950's and today, Sonoma County is known for its premier vineyards and wines.

3.5.2 Discussion of Potential Impacts

Cultural and historical resources are nonrenewable and are easily damaged or destroyed. Potential impacts to cultural and historical resources are determined by analyzing the potential effect of implementing the Proposed Project to known and unknown cultural and historical resources. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Cultural Resources if it would:

a) Cause a substantial adverse change in the significance of a historic resource pursuant to §15064.5? *No Impact*

Historical resources are defined by State CEQA Guidelines Section 15064.5 as "Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Generally, a resource shall be considered historically significant if the resource meets the criteria for listing on the California Register of Historical Resources."

The HPS (Evans & De Shazo 2023) did not result in the identification of any cultural resources within the project area; however, one previously recorded cultural resource and one newly identified cultural resource were identified adjacent and west of the project area (Evans & De Shazo 2023). The previously identified cultural resource includes the section of Arnold Drive between Martin Drive and Highway 12 that was recorded as historic scenic roadway in 1979. The newly identified cultural resource includes a bridge/culvert structure that carries Arnold Drive over Kohler Creek and is within boundary of the previously identified site. The bridge/culvert structure is not currently listed on any local, State, or federal list of historical resources and does not appear to have been previously evaluated by a Secretary of Interior-qualified architectural historian; therefore, the NRHP-eligibility of the resource is currently unknown.

[5] Spanish-speaking residents of Alta California during the Spanish and Mexican era.

There are no Proposed Project activities that involve the historic scenic highway; therefore, there would be no impact on the resource. Proposed Project activities near the concrete bridge/culvert structure would include placement of rock against the headwall on the culvert outlet. Placement of rock would not cause any alterations to the headwall, wing walls, or other components of the bridge/culvert structure; therefore, there would be no impact on the historic resource.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? *Less than Significant with Mitigation*

An archaeological resource is defined by Public Resources Code Section 21083.2 as "an archaeological artifact, object, or site, about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type of the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

No archaeological resources have been identified within the project area. However, the buried archaeological site sensitivity component of this HPS indicates that the project area has a moderate potential/sensitivity for buried historic-period archaeological resources, and a low to moderate potential/sensitivity for buried prehistoric archaeological resources. As a result, ground-disturbing activities associated with the Proposed Project could reveal previously undiscovered buried archaeological resources. Impacts to previously undiscovered buried archaeological resources could result in a potentially significant impact.

Implementation of Mitigation Measure CUL-1: Protection of Inadvertent Discovery of Historical or Archaeological Resources and Worker Awareness Training would reduce potential impacts to less than significant by ensuring that construction work would halt within 50 feet of an unanticipated find so that a Secretary of Interior-qualified archaeologist and Native American representative could make additional recommendations if required. If the resource is determined to be a significant historical or unique archaeological resource, additional measures would be taken to minimize or avoid significant effects, which may include (but are not limited to): avoidance; capping the site; deeding the site into a permanent conservation easement; or data recovery excavation. Implementation of Mitigation Measure CUL-1 would minimize the potential for the Proposed Project to adversely affect historical or archaeological resources by requiring

worker awareness training and halting work and implementing data recovery or preservation procedures and reduce the impact to less than significant. Implementation of the mitigation measure would provide the protections needed to avoid a substantial adverse change in the significance of any archaeological resources pursuant to State CEQA Guidelines Section 15064.5. Therefore, with the implementation of Mitigation Measure CUL-1, the Proposed Project would result in a less-than-significant impact associated with a substantial adverse change in the significance of historic resources pursuant to State CEQA Guidelines Section 15064.5.

Mitigation Measure CUL-1: Protection of Inadvertent Discovery of Historical or Archaeological Resources and Worker Awareness Training

The Sonoma Valley County Sanitation District (SVCSD) shall ensure the following measures are implemented during the Proposed Project to protect historic and archaeological resources:

1. The contractor shall comply with SVCSD's Standard Contract Documents regarding the discovery of cultural resources, including Native American cultural resources and items of historical and archaeological interest. The SVCSD Construction Inspector and construction personnel will be notified of the possibility of encountering cultural resources during project construction.
    a. Prior to initiation of ground-disturbing activities, SVCSD shall arrange for construction personnel to receive training about the kinds of cultural materials that could be present at the project sites and protocols to be followed should any such materials be uncovered during construction. An archaeologist who meets the U.S. Secretary of Interior's professional standards (48 Fed. Reg. 44716, 44738-44739 and Appendix A to 36 CFR 61) shall provide appropriate archaeological training, including the purpose of the training to increase awareness and knowledge of tribal cultural resources and appropriate protocols in the event of an inadvertent discovery. The Tribal Monitor shall provide appropriate tribal cultural resources training as determined by the Tribe. Training may be required during different phases of construction to educate new construction personnel.
2. The project specifications shall provide that if discovery is made of items of historical, archeological, or cultural interest, the contractor will immediately cease all work activities in the area of discovery. Historical, archaeological, and cultural indicators may include, but are not limited to, dwelling sites, locally darkened soils, stone implements or other artifacts, fragments of glass or ceramics, animal bones, and human bones. After cessation of

excavation, the contractor will immediately contact SVCSD's Construction Inspector. The contractor will not resume work until authorization is received from the Construction Inspector.

a. In the event of unanticipated discovery of archaeological materials occurs during construction, SVCSD shall retain the services of a qualified professional archaeologist who meets the U.S. Secretary of Interior's professional standards (48 Fed. Reg. 44716, 44738-44739 and Appendix A to 36 CFR 61) to evaluate the significance of the items prior to resuming any activities that could impact the site.
b. In the case of an inadvertent archaeological discovery, if it is determined that the find is potentially eligible for listing in the California Register of Historical Resources and/or National Register of Historic Places, and the site cannot be avoided, additional mitigation measures shall be implemented. Mitigation measures may include (but are not limited to): avoidance; capping the site; deeding the site into a permanent conservation easement; or data recovery excavation. Mitigation measures for archaeological resources shall be developed in consultation with responsible agencies, and the culturally affiliated Native American tribe. If data recovery excavation is necessary, SVCSD shall provide an Archaeological Resource Management and Data Recovery Plan, prepared by a qualified archaeologist, outlining recovery of the resource, analysis, and reporting of the find. The Archaeological Resource Management and Data Recovery Plan shall be approved by SVCSD and affected Native American tribe. Implementation of the Archaeological Resource Management and Data Recovery Plan shall be conducted prior to work being resumed.

c) Disturb any human remains, including those interred outsides of formal cemeteries? *Less than Significant with Mitigation*

Section 7050.5 of the California Health and Safety Code states that it is a misdemeanor to knowingly disturb a human burial and Section 5097.99 of the Public Resources Code defines the obtaining or possession of Native American remains or grave goods to be a felony. Buried human remains, by law, must be reported to the County Coroner. The disposition of Native American burials is within the jurisdiction of the Native American Heritage Commission (NAHC), who has the statutory authority to mediate agreements regarding the disposition of Native American remains. In cases in which human remains are known or believed to be likely, consultation with the NAHC is initiated early in the planning process so that the consultations with appropriate Native American most likely

descendant occurs and agreement regarding the disposition of the remains can be reached.

Human remains are not known to be present in the project area. However, ground disturbance associated with the Proposed Project could reveal unknown human remains, and the impact would be significant.

Implementation of Mitigation Measure CUL-2: Protection of Inadvertent Discovery of Human Remains requires that the Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5 process be followed. Under this process, if the coroner determines the remains are Native American, the coroner will contact the Native American Heritage Commission. As provided in Public Resources Code Section 5097.98, the Native American Heritage Commission will identify the person or persons believed to be most likely descended from the deceased Native American. The Most Likely Descendent (MLD) makes recommendations for means of treating the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98. Implementation of Mitigation Measure CUL-2 would ensure proper procedures are followed if previously unknown human remains are discovered and the impact would be less than significant after mitigation is incorporated.

Mitigation Measure CUL-2: Protection of Inadvertent Discovery Human Remains

The Sonoma Valley Sanitation District shall ensure the project specifications require the contractor to comply with Public Resources Code 5097.98 and Health and Human Safety Code 7050.5, as they pertain to the discovery of human remains. If human remains are encountered, the contractor shall halt work in the vicinity of the find, and contact the Sonoma Valley County Sanitation District's Construction Inspector and the Sonoma County Coroner in accordance with Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5. Work shall cease in the immediate area until the Section 5097.8 process is concluded.

3.6 Energy

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

3.6.1 Setting

SVCSD treats wastewater from approximately 17,000 households. The utility uses energy to provide sanitation services including electricity to power its treatment plant and infrastructure and fuel for its vehicles to provide routine checks and maintenance services (SVCSD 2023). The Proposed Project would ensure that existing sewer line infrastructure would not fail from stream erosion and would not expand the utility's operations or infrastructure or create increased demand. Energy uses that are considered in this analysis include energy output associated with construction, maintenance and monitoring of the Proposed Project.

Assembly Bill (AB) 32, the Global Warming Solutions Act, addresses greenhouse gas emissions and associated energy use across the state and throughout different sectors of California's economy, with the goal of reducing emissions to 1990 levels by 2020 and 40 percent below 1990 levels by 2030. The California Air Resources Board (CARB) is tasked with the implementation of AB 32 through the development of a Scoping Plan, which is to be updated every five years. CARB produced its third update to the Scoping Plan in 2022 (CARB 2022). The Scoping Plan provides a sector-by-sector guide to achieving carbon neutrality by reducing energy use and expanding actions to capture and store carbon through the state's natural and working lands.

Locally, Sonoma County's General Plan 2020 identifies goals and objectives related to energy use. The Open Space and Resource Conservation Element sets goals including promoting energy conservation and reducing greenhouse gas emissions (OSRC-14 and OSRC-14.4)(Permit Sonoma 2016). The Land Use Element (Policy LU-11b) states that all types of development and land uses should, when possible, "use alternative renewable energy sources and meaningful energy conservation measures" (Permit Sonoma 2016).

Efficient energy use across all sectors is key to upholding both the letter and spirit of the Scoping Plan and Sonoma County's General Plan 2020.

3.6.2 Discussion of Potential Impacts

In order to ensure that energy implications are considered in project decisions, CEQA Section 21100(b)(3) requires that the potential energy impacts of a Proposed Project be considered, with emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. Appendix F of the CEQA Guidelines provides guidance for assessing the significance of potential energy impacts. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Energy if it would:

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

During construction, the Proposed Project would require the use of diesel-powered heavy equipment to perform construction work and gas-powered vehicles to access the site and bring materials and equipment to the area. As described in the project description, equipment may include a JD 200LC excavator, a JD210 loader, compactors/rollers, a pickup truck, a flatbed truck, a backhoe, a dump truck, a water truck, and a concrete truck. In total, construction activities would require 70 one-way truck trips for delivery of rock and other materials. Daily worker trips would vary throughout the duration of the Proposed Project, which would last up to three months. Given the temporary nature of construction and the limited size of the Proposed Project elements, energy consumption required for construction of the Proposed Project would not be significant in scale and would not have a measurable effect on local and regional energy supplies. The impact would be less than significant.

Operation of the Proposed Project would occur as described in the project description. Energy demands associated with operation and maintenance would include truck trips to and from the project site. The frequency of maintenance activities would not increase as a result of the Proposed Project and may decrease with more stable conditions. It is likely that maintenance trips may decrease following implementation of the Proposed Project since the streambank would be stabilized and revegetated.

Neither operation nor maintenance of the Proposed Project would result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy. The Proposed Project would consume energy in the form of fossil fuels during construction and maintenance to operate heavy equipment and vehicles. As energy use would be temporary and intermittent, the use of fuels would not be wasteful or unnecessary because their use is required to complete the project. Therefore, the Proposed Project would have a less-than-significant impact on energy resources and no mitigation is required.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? *No Impact*

The Proposed Project would not conflict with any renewable energy or energy efficiency plans, including goals set forth in AB 32, the objectives of the 2022 CARB Scoping Plan, and the goals and policies contained in Sonoma County's General Plan 2020. The 2022 CARB Scoping Plan directs that 25 percent of energy demand for construction equipment be electrified by 2030 and 75 percent of energy demand be electrified by 2045 (Scoping Plan, p. 263). That action lays the majority of responsibility on the shoulders of industry and government, to create and subsidize alternatives. While the project would require the use of diesel-powered heavy equipment during construction and gas-powered vehicles throughout construction, operation, and maintenance, its long-term goals include building up the local ecosystem, preventing wastewater spills and maintaining aging infrastructure, all objectives that fully align with the spirit of the policy. The Scoping Plan also specifically mentions the restoration of riparian zones as an action that should be taken on California's natural and working lands (including green spaces within urban corridors, like the Proposed Project site). The plan calls riparian zones one of California's unique habitats, the restoration of which provides "multiple co-benefits to the state, such as clean water, reduced wildfire risk, and biodiverse habitats for flora and fauna." (Scoping Plan, p. 263). As the Proposed Project aligns with the 2022 CARB Scoping Plan, the project would not obstruct a state or local plan for renewable energy or energy efficiency. Therefore, there would be no impact.

3.7 Geology and Soils

Would the project:	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?	☐	☐	☐	☒

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

3.7.1 Setting

The geology and structure of Sonoma County has been shaped through a dynamic history of tectonism along the San Andreas Fault Zone (USGS 2006). The northwest-southeast alignment of the San Andres fault zone with its characteristic right-lateral strike-slip tensional movement is reflected in the alignment and orientation of the region's ridgelines and valleys. Movement along the fault zone was not only lateral, but also included compression resulting in the mountain building of the Coast Ranges, including the Proposed Project area. In geologic terms, this combination of lateral tension plus compression is known as transpression. In Sonoma County, the main artery of the San Andreas Fault roughly follows Highway 1 near the coast. The Healdsburg-Rodgers Creek and Mayacama faults represent more interior arms of the San Andreas system, sharing its same orientation. The Proposed Project area is near the Rodger Creek fault.

The San Andreas Fault has been relatively quiet in Sonoma County since the historic 1906 earthquake (magnitude 8.3). The Healdsburg-Rogers Creek and Mayacama faults are considered active faults with known activity during the Holocene period (last 10,000 years). Of recent note, in 1969 two moderate earthquakes (magnitudes 5.6 and 5.7) along the Rogers Creek Fault caused moderate damage in Santa Rosa. No mapped faults or earthquake fault zones are identified at the project site. Ground rupture is a geologic

hazard in areas immediately adjoining a fault. The project area does not immediately adjoin any mapped fault.

The project area is located within the Sonoma Volcanics, Basalt flows subunit (CGS 2003). The Sonoma Volcanics constitute a thick highly variable series of continental volcanic rocks, including andesite, basalt, and minor rhyolite flows with interbedded coarse- to fine-grained pyroclastic tuff and breccia, re-deposited tuff and pumice, and diatomaceous mud, silt, and sand. Sonoma Volcanics is believed to have been formed in the interval between late Miocene and early Pleistocene times as part of a northward series of volcanic centers related to the initiation of the San Andres Fault system (Fox 1985). The lava flows of the Sonoma Volcanics are not paleontologically sensitive; however, the sedimentary strata in the Sonoma Volcanics have high paleontological sensitivity.

The main geologic hazards for the Proposed Project area are slope stability hazards under strong seismic shaking, or more commonly, during intense rainfall events that quickly saturate the soil. Landslides are the downward movement of materials such as rock, soil, or fill. Debris flows are a rapid downslope movement of thick slurry composed of loose soil, rock, and organic material entrained with air and water; a debris avalanche is a more rapid or extreme debris flow. The size of landslides can vary from small events to massive slides containing millions of cubic yards. A landslide may move rapidly, as in a soil or rock avalanche, or it may move slowly. A similar but much slower movement is called creep. The Proposed Project area is mapped as few landslides (ABAG 2023).

Ground shaking is one of the key geologic hazards associated with seismic activity, with some areas more susceptible to strong shaking and potential damage due to their proximity to the fault zone or their underlying soil composition. Soils most susceptible to seismic shaking amplification tend to be younger alluvial deposits, bay mud, and artificial fill found in the lower lying areas around open water. The project area is prone to very strong ground shaking during an earthquake along the Rodgers Creek and San Andres faults (ABAG 2023). Liquefaction potential in the project area is generally very low given the site topography and soil types in the area. However, Sonoma Creek itself could be subject to liquefaction (ABAG 2023).

Soils in the study area are mapped as Riverwash and Spreckels loam 9-15 percent slopes (NRCS 2023). Riverwash is commonly found on floodplains and is derived from sandy and gravelly alluvium. Spreckels loam is generally found on hills and terraces, which is the case at the Proposed Project site.

Land subsidence is the sinking of a large area of ground surface in which the material is displaced vertically downward, with little or no horizontal movement, while areas susceptible to earthquake-induced settlement include those underlain by thick layers of colluvial material or un-engineered fill. Subsidence problems are common in the diked baylands because of the highly compressible nature of the existing fill. However, the

Proposed Project area is not on diked baylands is not susceptible to land subsidence (ABAG 2023).

3.7.2 Discussion of Potential Impacts

A project would normally result in a significant impact to geology and soils if it would result in substantial erosion, expose people to major geologic hazards, or a permanent loss of natural geologic resources created by a substantial change in topography or land subsidence. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Geology and Soils if it would:

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. *No Impact*

No portion of the project area is located within an Alquist-Priolo Earthquake Fault Zone, and there are no mapped active faults within the project area. The nearest known active earthquake fault is the Rodgers Creek Fault, located to the west of the project area. Implementation of the Proposed Project would not be located in areas prone to ground rupture and the project would not increase the risk of ground rupture in the project area. Therefore, implementation of the Proposed Project would result in no impact associated with rupture of a known earthquake fault involving risk of loss, injury, or death.

ii) Strong seismic ground shaking? *No Impact*

Ground shaking is one of the key geologic hazards associated with seismic activity, with some areas more susceptible to strong shaking and potential damage due to their proximity to the fault zone or their underlying soil composition. Soils most susceptible to seismic shaking amplification tend to be younger alluvial deposits, bay mud, and artificial fill found in the lower lying areas around open water.

The project area is located in an area that could experience earthquakes and ground shaking; however, the Proposed Project would not directly or indirectly result in substantial adverse effects from strong ground shaking. Implementation of the proposed streambank stabilization and pipeline protection, and any future maintenance would not result in substantial adverse effects related to ground shaking including the risk of loss, injury, or death involving strong seismic ground shaking.

iii. Seismic-related ground failure, including liquefaction? *No Impact*

Liquefaction can result when strong ground shaking, such as during an earthquake, occurs in loose granular soils in saturated conditions. ABAG has identified the liquefaction

hazard at the project sites as “very low” for the project site in general to “high” within the bed of Sonoma Creek based on California Geologic Survey data (ABAG 2023). The riverwash in the bed of Sonoma Creek has a very high potential for liquefaction, while the Spreckels loam soils have very low susceptibility to liquefaction. The Proposed Project would not affect the risk of seismic-related ground failure and liquefaction in the project area. Therefore, implementation of the Proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure including liquefaction.

iv. Landslides? *No Impact*

Landslides are the downward movement of materials such as rock, soil, or fill. Debris flows are a rapid downslope movement of thick slurry composed of loose soil, rock, and organic material triggered by prolonged intense rainfall.

The project area is mapped as few landslides by both ABAG and Sonoma County (ABAG 2023). The proposed streambank stabilization, pipeline protection, and future maintenance would protect the eroding streambank and reduce concentrated water runoff to improve infiltration and promote revegetation to improve conditions while providing protection along the streambanks from further erosion. The Proposed Project would not create any new landslide hazards. Therefore, implementation of the Proposed Project would result in no impacts associated with risk of loss, injury, or death involving landslides.

b) Result in substantial soil erosion or the loss of topsoil? *Less than Significant with Mitigation*

Erosion is a natural process whereby soil and highly weathered rock materials are worn away and transported, most commonly by wind or water. Soil erosion can become problematic when rapid soil loss and the development of erosional features, such as incised channels, rills, and gullies undermine roads, buildings, or utilities or when erosion results in impacts to water quality, aquatic resources, and other natural resources. Natural rates of erosion can vary depending on slope, soil type, and vegetative cover.

Soils in the Proposed Project area are mapped as Riverwash and Spreckels loam, which are both well-drained soils; however, they are susceptible to erosion, especially when subject to concentrated runoff. Evidence of concentrated runoff is present throughout the Proposed Project area. Laying back the over steepened streambank along Sonoma Creek and installing fabric re-enforced earthen material and willow brush mattresses would provide areas to quickly revegetate the site, which would stabilize exposed soils and reduce erosion caused by flowing water and concentrated runoff. As presented in the project description, the revegetation plan would include six different planting zones each with a combination of native vegetation appropriate for the site as well as treatment and grass seeding over approximately 9,000 square feet of temporary disturbed area.

Revegetation efforts would include an array of grass, forbs, shrubs, and trees based on each individual location. Although, construction and maintenance of the Proposed Project would not increase erosion, and the project is designed to reduce erosion at the site, as previously discussed, the project area is susceptible to soil erosion, especially when subject to concentrated runoff, which could result in a significant impact.

Implementation of proposed revegetation plan and erosion control plan along with implementation of Mitigation Measure GEO-1: Minimize Erosion, Sedimentation, and Discharge to Surface and Groundwater would avoid the potential for substantial soil erosion or loss of topsoil and the impact would be less than significant.

Mitigation Measure GEO-1: Minimize Erosion, Sedimentation, and Discharge to Surface and Groundwater

Sonoma Valley County Sanitation District will require contractors, through project contract specifications within Sonoma Water, and Sonoma Water maintenance staff to implement the following in accordance with Caltrans BMP Manual (Caltrans 2017), if not otherwise included in the project's Storm Water Pollution Prevention Plan (SWPPP).

1. Soil disturbance shall be kept to the minimum footprint necessary to complete the project and existing vegetation should be preserved to the extent feasible.
2. Staging will occur on work areas, access roads, surface streets, designated stockpile areas, or other disturbed areas that are already compacted and only support ruderal vegetation. Similarly, all equipment and materials will be contained within the existing service roads, paved roads, or other pre-determined staging and stockpile areas. Stockpiling of materials, including portable equipment, vehicles and supplies (e.g., chemicals), shall be restricted to the designated construction staging areas.
3. All project-related items, including equipment, stockpiled material, temporary erosion control treatments, and trash, will be removed within 72 hours of project completion.
4. As necessary, to prevent sediment-laden water from being released during transport of spoils to onsite disposal locations, truck beds will be lined with an impervious material (e.g., plastic), or the tailgate blocked with wattles, hay bales, or other appropriate filtration material. Trucks may drain excess water by slightly tilting the loads and allowing the water to drain out through the applied filter, only within the active work area where the sediment is being loaded into the trucks.
5. No runoff from the staging areas will be allowed to enter waters of the State, including the creeks or storm drains, without being subjected to adequate filtration (e.g., vegetated buffer, hay wattles or bales, silt screens). The discharge of decant water from any onsite temporary sediment stockpile, or

storage areas, to waters of the State, including surface waters or surface water drainage courses, outside of the active project site, is prohibited.

6. During the dry season (June 15 to October 15), if stockpiled soils will remain exposed and unworked for more than 7 days then erosion control measures will be utilized. During the wet season (October 16 to June 15), no stockpiled soils will remain exposed, unless surrounded by properly installed and maintained silt fencing or other means of erosion control.
7. Work will avoid significant rainfall events. Significant rainfall is defined as 0.1 inch of rain in a 24-hour period. Work will resume when conditions allow and as specified in the SWPPP and Construction General Permit for the Proposed Project.
8. In anticipation of the first significant rainfall event, exposed soils will be stabilized according to requirements of the SWPPP and Construction General Permit.
9. Following completion of construction or maintenance activities, upland soils should be seeded and stabilized using erosion control fabric, straw, and/or hydroseeding using California certified weed free native seeds appropriate for the site.
10. Erosion control fabrics shall consist of natural fibers that will biodegrade over time. No plastic or other non-porous material will be used as part of a permanent erosion control approach. Plastic sheeting may be used to temporarily protect a slope from runoff.
11. Erosion control measures shall be installed according to manufacturer's specifications.
12. Appropriate measures include, but are not limited to, the following (measures utilized would be implemented in accordance with the Caltrans BMP Manual (Caltrans 2017)):
    a. Silt fences
    b. Straw bale barriers
    c. Brush or rock filters
    d. Storm drain inlet protection
    e. Sediment traps
    f. Sediment basins
    g. Erosion control blankets and mats
    h. Straw wattles
    i. Soil stabilization (i.e., tackified straw with native seed, jute or geotextile blankets, broadcast and hydroseeding, etc.)

13. All temporary construction-related erosion control methods (e.g., silt fences) shall be removed at the completion of construction, or as directed by a qualified erosion control specialist.

c) Located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? *No Impact*

Slope failures, commonly referred to as landslides, include many phenomena that involve the downslope displacement and movement of material, triggered by either static forces, such as gravity, or dynamic forces, such as an earthquake. Slope stability can depend on several complex variables, including the geology, structure, and the amount of groundwater present, as well as external processes such as climate, topography, slope geometry, and human activity. Liquefaction is the rapid loss of shear strength experienced in saturated, predominantly loose granular soils below the groundwater level during strong earthquake ground shaking and occurs due to an increase in pore water pressure. Earthquake-induced settlement of soils results when relatively unconsolidated granular materials experience vibration associated with seismic events. The vibration causes a decrease in soil volume as the soil grains tend to rearrange into a denser state. This decrease in volume and consolidation of soil can result in the settlement of overlying structural improvements.

As noted in the setting section, the Proposed Project area is mapped as having few landslides and is not prone to increased risk of landslide. Though not caused by landslides or geologic instability, existing conditions at the project site are unstable due to bank erosion along Sonoma Creek and downcutting of the channel bed along Kohler Creek. The Proposed Project would stabilize the bank along Sonoma Creek to prevent further migration of the erosion towards the buried pipelines, increase the elevation of the bed of Kohler Creek to provide cover over the existing pipeline, and stabilize the banks of Kohler Creek to prevent further erosion. The area at the immediate project site is not prone to liquefaction as the siphon pipe crossing is located at a site of exposed bedrock. The soils are not prone to subsidence, and the Proposed Project area is not located on an unstable geologic unit. The Proposed Project would not result in any on- or off-site landslide, lateral spreading, subsidence, or liquefaction. Therefore, implementation of the Proposed Project would not cause a geologic unit or soil to become unstable and result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse; therefore, no impact would occur.

d) Located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? *No Impact*

Expansive soils expand and contract in response to changes in soil moisture, most notably when near-surface soils change from saturated to dry and back again. Generally, the expansiveness relates to the clay content in the soil. These soils often expand in the winter and shrink in the dry summer months. The soil types in the project area have no expansive soil quality. The Proposed Project does not include construction of any structures and would not substantially alter the existing use of the property. Therefore, implementation of the Proposed Project would result no impact on direct or indirect risks to life or property associated with expansive soils.

e) Soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? *No Impact*

Implementation of the Proposed Project would not generate wastewater and would not include the installation or use of any septic tanks or alternative wastewater disposal systems. Therefore, implementation of the Proposed Project would result in no impact associated with septic tanks and alternative wastewater disposal systems.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? *No Impact*

Geology within the project area consists primarily of the Sonoma Volcanics (CGS 2003). Although the sedimentary strata in the Sonoma Volcanics have a high paleontological (fossils) sensitivity, the lava flows of the Sonoma Volcanics are not paleontologically sensitive. The project site is located with the Basalt flow subunit, and the paleontological sensitivity is considered low and the site is not known for paleontological resources or unique geologic features (CGS 2003). Therefore, implementation of the Proposed Project would not directly or indirectly destroy unique paleontological resources or site or unique geologic features and there would be no impact.

3.8 Greenhouse Gas Emissions

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

3.8.1 Setting

Global climate change is the observed increase in average global temperatures, along with other changes in climatic factors such as wind, precipitation, and storm frequency and intensity. Climate change can result from natural factors and processes, but recent trends in global climate change, including the marked increase in global temperatures over the past half-century, are primarily attributable to human activities. Greenhouse gas (GHG) emissions resulting from a wide array of human activities such as the burning of fossil fuels and deforestation trap heat, and are a primary cause of human-caused climate change.

GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_20), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). Known as Global Warming Potential (GWP), the potency of each GHG and its relative contribution to global climate change can vary widely depending on the ability of the GHG to trap heat in the atmosphere and its atmospheric lifetime. GWP is measured relative to CO_2, the most abundant GHG, which has a GWP of 1. Methane has a GWP of 28-36, nitrous oxide has a GWP of 265-298, and the GWP of HFCs and PFCs can be in the tens of thousands (EPA 2021). Total GHG emissions are typically measured in metric tons of CO_2 equivalent ($MTCO_2e$).

There are two means for reducing GHGs in the atmosphere: reducing emissions of GHGs and increasing sequestration, the process by which atmospheric GHGs are stably incorporated into non-mobile forms such as trees and soil. In California, there are four significant pieces of legislation seeking to address climate change and GHG emissions:

- Assembly Bill (AB) 32, the Global Warming Solutions Act, addresses total GHG emissions across the State and throughout different sectors of California's

economy, with the goal of reducing emissions to 1990 levels by 2020 and 40 percent below 1990 levels by 2030.

- Assembly Bill (AB), passed in 2022, builds on AB 32 by establishing the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045 and maintain net negative greenhouse gas emissions thereafter, and to ensure that by 2045 statewide anthropogenic greenhouse gas emissions are reduced at least 85 percent below 1990 levels.
- Senate Bill (SB) 375 requires reduction of emissions from automobiles and light trucks.
- SB 97 requires consideration of climate change in all environmental assessments under CEQA, regardless of the specific source of GHGs or other climate change effects.
- SB 32 sets a GHG emissions reduction target of 40 percent below 1990 levels by 2030.

The California Air Resources Board (CARB) is tasked with the implementation of AB 32 and AB 1279 through the development of a Scoping Plan, which is to be updated every five years. CARB produced its third update to the Scoping Plan in 2022 (CARB 2022). As discussed in 3.6 Energy, the Scoping Plan outlines how carbon neutrality can be achieved by reducing GHGs to meet the anthropogenic emissions target and expanding actions to capture and store carbon through the state's natural and working lands. The Scoping Plan addresses GHG emissions by sector, including construction equipment, light-duty vehicles (LDV), and trucks. The Scoping Plan identifies the green spaces in urban and built environments as Natural and Working Lands (NWL), where the main objective involves carbon sequestration and building climate resilience. As the Proposed Project area is located on private property zoned Urban Residential Area, situated within a section of riparian area at the confluence of two creeks, the project fits this category as NWL.

The Bay Area Air Quality Management District (BAAQMD) regulates GHG locally. BAAQMD's 2017 Clean Air Plan: Spare the Air, Cool the Climate (2017 CAP) focuses on achieving greenhouse gas reduction targets for 2030 and 2050, such as for methane and carbon dioxide. The BAAQMD 2022 CEQA Air Quality Guidelines provide standards for analyzing a project's potential impacts on GHG emissions and thresholds of significance for operational emissions (BAAQMD 2023). Per the 2022 BAAQMD CEQA Air Quality Guidelines, the BAAQMD considers a project consistent with the CAP if it: 1) can be concluded that a project supports the primary goals of the CAP (by showing that the project would not result in significant and unavoidable air quality impacts); 2) includes applicable control measures from the CAP; and 3) does not disrupt or hinder implementation of any CAP control measure.

Locally, the Regional Climate Protection Authority (RCPA) provides GHG reduction goals for Sonoma County. The RCPA is an inter-governmental agency governed by a 12-member Board of Directors comprised of representatives from the Sonoma County Board of Supervisors and city council members from each of the county's nine cities. With the adoption of the Sonoma Climate Mobilization Strategy in March 2021, RCPA set a goal for Sonoma County to achieve carbon neutrality by 2030. Sonoma County emissions in 2020 were 3.04 million metric tons of CO2e ($MTCO_2e$), a 23 percent reduction relative to 1990 emissions (RCPA 2020). GHG emissions in unincorporated Sonoma County, where the project site is located, were estimated to total 820,612 $MTCO_2e$ in 2020, with building energy accounting for 21 percent, transportation accounting for 71 percent, water-related use accounting for 2 percent and solid waste accounting for 6 percent (Greenhouse Gas Inventory – 2020 Update, pg. 7). The Climate Action Plan provides a range of strategies and actions for achieving GHG emission reduction targets across all of these sectors.

3.8.2 Discussion of Potential Impacts

A project would normally result in a significant impact on GHG emissions if it results in a significant increase in GHG emissions or conflicts with a plan, policy or regulation intended to reduce GHG emissions. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to GHG if it would:

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

Construction of the Proposed Project would result in minor GHG emissions from the use of equipment and vehicles. The roughly three-month construction of the Proposed Project would require limited use of heavy equipment. Workers would access the construction site daily during construction of the Proposed Project and the number of daily trips would vary during the construction period. The fossil fuel combustion from use of equipment and vehicle trips would result in emissions of CO_2 and other GHGs. These construction-related emissions would be limited as a result of the temporary nature of the construction and the relatively small scale of the Proposed Project area and proposed construction elements.

The 2022 BAAQMD CEQA Air Quality Guidelines provide a process for evaluating the Proposed Project's impact on GHG emissions (BAAQMD 2023). The BAAQMD has not developed a quantitative threshold of significance for construction-related GHG emissions (BAAQMD 2023). The BAAQMD previously identified a quantitative threshold for non-stationary source projects as annual operational emissions of more than 1,100 $MTCO_2e$, which was derived from a gap filling analysis of the measures necessary to meet the 2020 target established by AB 32 to achieve 1990 levels by 2020 (BAAQMD 2017a). The new SB 32 climate pollution reduction target is to reduce GHG emissions by 40% below 1990 levels by 2030. To develop a quantitative threshold to be used on an

interim basis, the previous BAAQMD quantitative threshold of 1,100 $MTCO_2e$ per year was adjusted downward by 40%. A quantitative threshold of 660 $MTCO_2e$ /year for 2030 was applied to the Proposed Project.

The Proposed Project would require approximately 520 cubic yards of rock for construction, although up to approximately 120 cubic yards of rock already exists on-site from the 2019 emergency repairs and would be re-used. A CalEEMod evaluation was conducted, concluding that the Proposed Project would generate 228 $MTCO_2e$ per year during construction and 0 $MTCO_2e$ per year during operation. The anticipated life of the project, much of which incorporate bioengineering materials, is 25 to 50 years. When the project's construction emissions are amortized over an estimated 30-year life of the project, the emissions are 7.6 $MTCO_2e$ per year, which is well below 660 $MTCO_2e$ per year.

The project would not result in GHG emissions that would have a significant impact on the environment. Therefore, construction and operation of the Proposed Project would result in a less-than-significant impact associated with the generation of GHGs, 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? *No Impact*

Existing plans and policies aimed at reducing GHG emissions apply to a variety of sources such as residential, transportation, agriculture, water, waste management and industry. The Proposed Project would maintain and protect existing infrastructure and the natural environment and would not result in land use changes, population growth or new development of any kind. Pollutants would be far below the construction criteria and precursor screening level size for a light industrial or industrial park development – an applicable comparison, since BAAQMD's screening size guidance does not include operational-related criteria that apply directly to infrastructure maintenance. Because the Proposed Project would not result in new long-term operations-related emissions, the frequency of maintenance activities would not increase, and construction-related emissions would be short-term and less than significant, the Proposed Project would not conflict with the primary goals of the 2017 CAP.

Neither construction nor operation of the Proposed Project would result in GHG emissions that would have a significant impact on the environment. The Proposed Project does not create any new stationary or mobile sources of GHG emissions and does not alter land use or otherwise inhibit carbon sequestration. The project also would not conflict with the 2021 Sonoma Climate Mobilization Strategy, since neither construction nor operation of the Proposed Project would result in GHG emissions that would have a significant impact on the environment.

The project would not conflict with the GHG reduction goals and policies set forth in statewide legislation, the CARB Scoping Plan or the BAAQMD Clean Air Plan. Therefore, implementation of the Proposed Project would result in no impact associated with a conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

3.9 Hazards and Hazardous Materials

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

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard 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?	☐	☐	☒	☐

3.9.1 Setting

California Health and Safety Code Section 25501 defines hazardous material as a material that, because of its quantity, concentration, or physical or chemical characteristics, poses significant present or potential hazard to human health and safety or to the environment if released into the workplace or environment, or a material specified as hazardous by ordinance.

3.9.2 Discussion of Potential Impacts

A project would normally result in a significant impact on hazards and hazardous materials if the project would expose people and/or the environment to hazards or hazardous materials. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Hazards and Hazardous Materials if it would:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? *Less than Significant*

Construction and maintenance of the Proposed Project would include the use of vehicles and equipment that require small quantities of hazardous materials. These materials include, but are not limited to, fuel, lubricants, adhesives, toxic solvents. The Proposed Project is required to comply with federal, State, and local regulations regarding the storage, handling, disposal, and cleanup of hazardous materials. Transport of hazardous materials to and from the project area could result in an incremental increase in the potential for accidents. However, existing laws and regulations govern the storage, transport, use, and disposal of hazardous materials. Caltrans and the California Highway Patrol (CHP) regulate the transportation of hazardous materials and wastes, including container types and packaging requirements, as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. Worker safety regulations cover hazards related to the prevention of exposure to hazardous materials and a release to the environment from hazardous materials use. Regulations and criteria for the disposal of hazardous materials mandate disposal at an appropriate landfill. The California Occupational Safety and Health Administration (Cal-OSHA) enforces hazard communication program regulations, which contain worker safety training and hazard information requirements, such as procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees. The transport, use, and disposal of hazardous materials for the construction and operation of the project would be adequately controlled through these existing regulatory requirements and the potential for impacts would be less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? *Less than Significant with Mitigation*

As described under a), above, the project would involve construction and maintenance activities that use limited quantities of hazardous materials, such as fuel and lubricants. Construction and maintenance of the Proposed Project could incrementally increase the potential for accidents involving the release of hazardous materials into the environment. However, as described above, the project would be subject to federal, State, and local laws and regulations governing hazardous materials that would reduce the likelihood of accidental release into the environment. Therefore, implementation of the Proposed Project would result in a less-than-significant impact associated with creation of 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. If these fuels and lubricants were released into the water or ground during application or equipment refueling or maintenance, contamination and harm to the

environment could result in 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.

Implementation of Mitigation Measures GEO-1 (Minimize Erosion, Sedimentation, and Discharge to Surface and Groundwater) and HAZ-1 (Spill Prevention and Response) would further minimize the potential effects of an unforeseeable release of hazardous materials. The potential impacts would be reduced to less than significant with implementation of Mitigation Measures GEO-1 and HAZ-1.

Mitigation Measure HAZ-1: Spill Prevention and Response

The Sonoma Valley County Sanitation District (SVCSD) shall require contractors, through project specifications, to prepare a Storm Water Pollution Prevent Plan (SWPPP). The SWPPP shall comply with Caltrans Storm Water Pollution Prevention Plan and Water Pollution Control Program Preparation Manual and the Caltrans Construction Site Best Management Practices Manual. The SVCSD will require contractors, through project contract specifications, and maintenance staff to follow the SWPPP during all project activities as well as implement the following measures:

1. All field personnel shall be appropriately trained in spill prevention, hazardous material control, and cleanup of accidental spills.
2. Equipment and materials for cleanup of spills will be available on site and spills and leaks will be cleaned up immediately and disposed of in accordance with local, State, and federal regulations.
3. Spill prevention kits shall always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations). Spill clean-up materials will be stockpiled where they are readily accessible. All field personnel shall be advised of these locations and trained in their appropriate use.
4. During construction and maintenance activities, Sonoma Water staff and contractor(s) will routinely inspect the work site to verify that items 1-3 above are properly implemented and maintained.
5. Absorbent materials will be used on small spills located on impervious surface rather than hosing down the spill; wash waters shall not discharge to the storm drainage system or surface waters. For small spills on pervious surfaces such as soils, wet materials will be excavated and properly disposed rather than burying it. The absorbent materials will be collected and disposed of properly and promptly.
6. Vehicle and equipment maintenance activities will be conducted offsite or in a designated, protected area away from flowing water equipped with secondary containment and designed to avoid a direct connection to

underlying soil, surface water, or the storm drainage system for stationary equipment that must be fueled.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? *No Impact*

There are no schools located within 0.25 mile of the project area. The Proposed Project would involve the temporary, routine transport and handling of small quantities of hazardous substances such as diesel fuels, lubricants, and solvents for equipment during construction and periodic maintenance activities would be used in accordance with local, State, and federal regulations. There would be no operational transport, use or disposal of hazardous materials. Therefore, there would be no impact to local schools.

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? *No Impact*

The Hazardous Waste and Substance Sites (Cortese) List, maintained by the California Environmental Protection Agency and the California Department of Toxic Substances, is the official database of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The Cortese List shows no active sites near the Proposed Project (EnviroStor 2023). A search for existing known contaminated sites in the project area on the State Water Resource Control Board's GeoTracker database was conducted. No contaminated or remediation sites are located at or near the project area (Geotracker 2023). Therefore, implementation of the Proposed Project would result in no impact associated with creation of a significant hazard to the public or the environment due to its location on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? *No Impact*

The project area is located approximately 5 and half miles north of the Sonoma Valley Airport and eight miles north of Sonoma Sky Park. The project area is outside the geographic boundary of both airport's land use plan. The Proposed Project and its proximity to the airport would not result in a safety hazard or excessive noise relative to baseline conditions. Implementation of the project would not conflict with the airport land use plans. Therefore, implementation of the Proposed Project would result in no impact associated with creation of 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? *No Impact*

The Proposed Project area is located in Glen Ellen adjacent to Arnold Drive in Sonoma County. The Proposed Project would not include structures that would permanently block or constrain roadways and would not result in inadequate emergency access. Emergency access to the site would be maintained during construction. Therefore, no impact from inadequate emergency access would occur and the project would not 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? *Less than Significant*

According to Cal Fire's Fire Hazard Severity Zone Maps (Cal Fire 2022), the Proposed Project area is identified as Very High Fire Hazard Severity Zone; however, the project site itself is void of most vegetation except for non-native grasses that have grown along the banks of Sonoma and Kohler creeks and within the proposed staging area. Therefore, this impact would be less than significant.

3.10 Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☐	☐	☒

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
d. impede or redirect flood flows?	☐	☐	☐	☒
e. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
f. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

3.10.1 Setting

Sonoma County has a Mediterranean climate characterized by warm, dry summers and mild, moist winters. The majority of annual precipitation in this region occurs as rain that falls during the period between November and April. Annual precipitation varies but average precipitation during the last century was 31 inches. Precipitation patterns in the region are influenced by local topography; correspondingly, mean annual precipitation generally increases with elevation. Stream discharge is determined by precipitation runoff bringing higher flows during winter and lower flows supported by groundwater during dry summer conditions.

Sonoma Creek is a 33.4-mile-long stream with headwaters rising in the rugged hills of Sugarloaf Ridge State Park and discharging to San Pablo Bay, the northern arm of San Francisco Bay. The watershed drained by Sonoma Creek is about 170 square miles. The City of Sonoma and unincorporated towns are located in the watershed, including Kenwood, Glen Ellen, Boyes Hot Springs, and Schellville, and the Proposed Project is located in the upper watershed near Glen Ellen.

Existing land uses in the watershed include agriculture, residential, commercial uses, industrial uses, public and quasi-public uses, and developed city land. Agriculture land uses include vineyards, hay fields, and dairies. The mix of urban, rural, agricultural, and undeveloped land uses within the project vicinity contributes to varied pollutant types that currently exist in Sonoma Creek. Runoff from urban areas can entrain pollutants including sediment, oil and grease, heavy metals, pesticides, and debris. Agricultural pollutants can include contaminants from livestock manure and chemical fertilizers.

Sonoma Creek supports beneficial uses for cold freshwater habitat, warm freshwater habitat, contact and noncontact water recreation, fish migration, preservation of rare and endangered species, fish spawning, and wildlife habitat. Sonoma Creek is currently listed on the Clean Water Act 303(d) list of impaired water bodies for excess sediment and pathogens. The watershed was delisted for nutrients in 2014.

The Proposed Project area is located in the Sonoma Valley Groundwater Subbasin. Groundwater is sustainably managed by the Sonoma Valley Groundwater Sustainability Agency. California Department of Water Resources (DWR) classifies the Subbasin as a high-priority basin with groundwater levels declining in some areas. The Sonoma Valley Groundwater Sustainability Agency began work on the Groundwater Sustainability Plan in 2018 and completed the plan in 2021. It identifies and quantifies existing problems and data gaps, defines local goals for the sustainable management of the Subbasin, and identifies means to achieve and maintain groundwater sustainability 50 years in the future. The Groundwater Sustainability Plan uses quantifiable, sustainability management criteria to define sustainability and includes projects, management actions, and an implementation plan to achieve locally determined sustainability goals.

3.10.2 Discussion of Potential Impacts

A project would normally result in a significant impact to hydrology or water quality if it would substantially degrade water quality, contaminate a public water supply, substantially degrade or deplete groundwater resources, interfere substantially with groundwater recharge, encourage activities that result in the use of large amounts of water, use water in a wasteful manner, or cause substantial flooding. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Hydrology and Water Quality if it would:

a) **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?** *Less than Significant with Mitigation*

Earthwork and construction activities associated streambank stabilization and the sewer pipeline and siphon protection activities could result in waste discharges or sedimentation that could affect water quality through erosion caused from grading and earthmoving

operations and a release of fuels or other chemicals used during construction. Maintenance activities could also result in similar impacts.

Implementation of the bank stabilization and protection of the siphon in Sonoma Creek would require dewatering, which also could affect water quality during construction and maintenance. Work in Kohler Creek would likely not require dewatering but construction activities could also affect water quality. Construction would expose soil during construction that could result in erosion, with excess sediments carried to Sonoma and/or Kohler creeks. The impact could be potentially significant.

Implementation of Mitigation Measure GEO-1: Minimize Erosion, Sedimentation, and Discharge to Surface and Groundwater and HAZ-1: Spill Prevention and Response would reduce potential impacts to the project area susceptible to soil erosion and further minimize the potential effects of an unforeseeable release of hazardous materials. Therefore, implementation of Mitigation Measure GEO-1 and HAZ-1 would result in a less-than-significant impact associated with a potential violation of water quality standards or waste discharge requirements, and a less-than-significant impact associated with potential degradation of surface or ground water quality following implementation.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? *No Impact*

The Proposed Project would repair an eroding streambanks to protect existing pipelines and associated infrastructure and provide sufficient cover over the siphon and pipeline that cross Sonoma and Kohler creeks. These activities would not change the existing groundwater conditions; therefore, implementation of the Proposed Project and maintenance would not affect groundwater supplies or impede groundwater management. There would be no impact.

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

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

Soils in the Proposed Project area are mapped as Riverwash and Spreckels loam, which are both well-drained soils; however, they are susceptible to erosion, especially when subjected to concentrated runoff. Construction and maintenance of the Proposed Project would not increase erosion, and the project is designed to reduce erosion at the site. Laying back the over steepened streambank along Sonoma Creek and installing fabric re-enforced earthen material and willow brush mattresses would provide areas to quickly revegetate the site, which would stabilize exposed soils and reduce erosion caused by flowing water and concentrated runoff. As presented in the project description, the revegetation plan would include six different planting zones each with a combination of

native vegetation appropriate for the site as well as treatment and grass seeding over approximately 9,000 square feet of temporary disturbed area. Revegetation efforts would include an array of grass, forbs, shrubs, and trees based on each individual location.

Although, construction and maintenance of the Proposed Project would not increase erosion, and the project is designed to reduce erosion at the site, as previously discussed, the project area is susceptible to soil erosion, especially when subject to concentrated runoff, which could result in a significant impact.

Implementation of Mitigation Measure GEO-1: Minimize Erosion, Sedimentation, and Discharge to Surface and Groundwater would reduce potential impacts to the project areas susceptible to soil erosion. Therefore, with the implementation of Mitigation Measure GEO-1 would result in a less-than-significant impact associated with potential erosion or siltation, on- or off-site following implementation.

ii) **Substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?** *No Impact*

The Proposed Project includes laying back the over steepened streambank along Sonoma Creek, protecting the existing siphon across Sonoma Creek from scour through placement of rock around the pipeline and providing at least two feet of rock cover over the existing pipeline across Kohler Creek would not substantially increase the rate or amount of surface runoff. Installation of fabric re-enforced earthen material and willow brush mattresses along the banks of Kohler and Sonoma creeks would decrease the flow over the banks and allow water to infiltrate more quickly without concentrating flows. Placement of log abutments and rock along the base of the banks of Sonoma Creek would protect the site from erosion caused by water flow from Sonoma Creek and would not increase the rate of surface runoff that might cause flooding. Placement of rock in Kohler Creek would provide a stable surface for water to flow over the buried pipeline and prevent downcutting and flooding. Therefore, there would be no impact from on-site or off-site flooding.

iii) **Create runoff, which would exceed capacity of stormwater drainage systems or provide additional sources of polluted runoff?** *No Impact*

The project area does not contain existing stormwater drainage systems, and none are planned as part of the Proposed Project. The proposed rock-line swale would function to convey runoff from Arnold Drive to Kohler Creek along a stable pathway. Therefore, the Proposed Project would not exceed the capacity of a stormwater drainage system or provide additional sources of polluted runoff, and there would be no impact.

IV. Impede or redirect flood flows? *No Impact*

The overall objective of the Proposed Project is to stabilize the streambank along Sonoma Creek and prevent channel downcutting in Kohler Creek to protect existing sewer pipelines and associated infrastructure. To accomplish the goals, log revetments, rock, and willow mattresses would be placed along the banks of Sonoma Creek to protect the bank from further erosion. The revetments would not be placed in such a manner as to redirect flow; rather, placement would accommodate flows that would persist following project implementation without causing further degradation and erosion. As presented in the project description, the streambed around the existing pipeline that crosses Sonoma Creek would be excavated for placement of rock riprap. The excavated area would be approximately 4 feet deep on the downstream side and 2 feet deep on the upstream side to accommodate placement of large boulders to prevent scour of the streambed around the pipeline. Riprap would be placed to the top of the existing pipe to maintain the existing flow line in the stream. The placement of the riprap would not impede or redirect flood flows.

The rocks placed in Kohler Creek would also accommodate anticipated flows within the channel without additional downcutting, which would not impede or redirect flows in the channel. Overall, the Proposed Project activities would not impede or redirect flows; therefore, there would be no impact.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? *No Impact*

The project area is not located in an area subject to the effects of a tsunami[6] or seiche[7], or near a large body of water that would be subject to seiches or tsunami (California Department of Conservation 2022). The project area is not in a location that has pollutants; therefore, implementation of the Proposed Project would have no impact associated with the risk of release of pollutants due to inundation by seiche, tsunami, or flood.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? *No Impact*

The Proposed Project would be located in an area covered in the Sonoma Valley Groundwater Sustainability Plan (GSA 2021). The Proposed Project would not obstruct attainment of any of the sustainable management goals or criteria included in the plan as

[6] Tsunami is a long high sea wave caused by an earthquake, submarine landslide or volcanic eruption, or other disturbance. The speed of tsunami waves is a factor of ocean depth, not distance from the ocean. Tsunami waves build to higher heights as they travel inland as the depth of the ocean decreases.

[7] Seiche is a temporary standing wave in the water level of a lake or partially enclosed body of water, usually caused by changes in atmospheric pressure caused by earthquakes or landslides.

the Proposed Project seeks to stabilize and eroding streambank along Sonoma Creek and raise the bed elevation of Kohler Creek to protect an existing sewer pipeline. Therefore, implementation of the Proposed Project would not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.11 Land Use and Land Use Planning

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

3.11.1 Setting

The Proposed Project is located on private property south of the town of Glen Ellen at the confluence of Sonoma Creek and Kohler Creek. It is adjacent to two private residences and the construction access would occur along an existing private driveway located off Arnold Drive between Chauvet Road and Hill Road. SVCSD has an existing maintenance easement to use the driveway for maintenance work.

The Proposed Project area is governed by the land use policies and designations adopted in the Sonoma County General Plan 2020 (Permit Sonoma 2016). The Sonoma County General Plan 2020 Zoning and Land Use Designation for the Proposed Project area is Urban Residential Area. Like much of the Sonoma area, it is situated in a neighborhood located in the vicinity of public parks and vineyards. Surrounding land use designations within a 1-mile radius include Public/Quasi Public to the south and east, Rural Residential to the west, and more Urban Residential to the north, along with pockets of Resources and Rural Development and Land Intensive Agriculture (Permit Sonoma 2016).

3.11.2 Discussion of Potential Impacts

A project would normally result in a significant impact to land use and planning if it would conflict with the adopted land use and zoning regulations or if it would disrupt or divide the physical arrangement of an established community. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Land Use and Land Use Planning if it would:

a) Physically divide an established community? *No Impact*

Although a patchwork of land use designations surrounds the neighborhood where the Proposed Project would take place, the project area itself would occur entirely within land zoned as Urban Residential Area. None of the proposed activities to protect the existing

sewer line infrastructure would physically divide the established community. The Proposed Project would maintain and protect the community's shared infrastructure. For this reason, implementation of the Proposed Project would not 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?** *No Impact*

The Proposed Project would be consistent with applicable general plans and policies and would not limit or restrict any existing activities that occur in the project area. Implementation of the Proposed Project would not change or otherwise affect the existing land uses or zoning of the property as designated by the Sonoma County General Plan 2020. Project activities would not result in new development and land would not be altered from its present use. Implementation of the Proposed Project would protect existing development and land uses and would not result in any incompatibilities with land uses. SVCSD would comply with all County ordinances and zoning codes. County of Sonoma Zoning Code Regulation Article 65 (Riparian Corridor Combining Zone) Section 26-65-040 allows several activities including "stream maintenance and restoration carried out or overseen by the Sonoma County Water Agency [Sonoma Water]." The Proposed Project would be consistent with the allowable stream maintenance activities.

Implementation of the Proposed Project would not change or otherwise affect the existing land uses or zoning of the property as designated by the Sonoma County General Plan 2020. Therefore, implementation of the Proposed Project would have no impact associated with a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.12 Mineral Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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?	☐	☐	☐	☒

3.12.1 Setting

The State Mining and Reclamation Act of 1975 requires that counties adopt policies to protect certain state-designated mineral resource sites from land uses that preclude or inhibit mineral extraction needed to satisfy local market demand on a timely basis. The purpose of the Act is to ensure that construction materials are available to all areas of the state at a reasonable cost. Various minerals have been mined in Sonoma County during the past century; currently, mining operations consist almost exclusively of the extraction and processing of rock, sand, and earth products for use in construction and landscaping. According to the Sonoma County General Plan 2020, from 1995 to 2002, an average of 4.84 million tons of construction aggregate was mined and marketed each year to meet local and regional needs. Approximately 75 to 112 million tons are likely to be needed over the next 20 years (Permit Sonoma 2016).

The California Geological Survey (CGS) has mapped and classified areas of significant mineral resources in the North Bay as MRZ-2 – areas underlain by mineral deposits that geologic data indicate to be significant and contains known economic mineral deposits (CGS 2013). The project area is classified as MRZ-1, or an area “where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.” No significant deposits of any mineral resources, including Portland cement concrete-grade aggregate, asphalt-grade aggregate, and Class II base-grade aggregate, are known to occur within the project area.

3.12.2 Discussion of Potential Impacts

A project would normally result in a significant impact to mineral resources if a loss of known mineral or of a locally important mineral resources recovery area occurred from implementation of the project. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Mineral Resources if it would:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? *No Impact*

The Proposed Project would implement permanent repairs along the banks of Sonoma and Kohler creeks and establish new and expanded easements to provide access along the pipeline routes for repair and maintenance purposes. The project area is designated by CGS to be an MRZ-1 area with little likelihood for the presence of significant mineral resources. The Proposed Project does not include any change in land use that would result in the loss of availability of any mineral resource that may be present in the area relative to baseline conditions. The county land use designation for the Proposed Project area is Urban Residential Area (Permit Sonoma 2016), and this land use would not change as a result of the project. Additionally, the Proposed Project does not include mineral extraction or excavation sufficient to affect any potential underlying mineral resources in the project area. Therefore, implementation of the Proposed Project would have no impact associated with 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? *No Impact*

The Sonoma County General Plan and Aggregate Resources Management Plan (Permit Sonoma 2010) recognizes the MRZ-2 zones designated by CGS as significant mineral resource sites and provides policies for preserving such sites. However, the project area is not located within an MRZ-2 zone and would not result in the loss of availability of any known mineral resources of value and the Proposed Project would not include mineral extraction or excavation sufficient to affect potential underlying mineral resources. Therefore, implementation of the Proposed Project would have no impact associated with the loss of availability of a locally important mineral resource recover site delineated on a local general plan, specific plan, or other land use plan.

3.13 Noise

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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 groundborne vibration or groundborne 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?	☐	☐	☐	☒

3.13.1 Setting

Noise is defined as unwanted sound and is a subjective reaction to the physical phenomenon of sound. Noise interferes with sleep, speech, recreation, and tasks demanding concentration or coordination. The result is an increase in public annoyance with the noise source and a decrease in environmental quality. How humans perceive noise can be further influenced by how quiet background sound levels are and the kind of sound being generated. For instance, the same noise source would tend to sound louder at night, when background sound levels are generally lowest.

Sound is compression waves that can travel through air, earth, and water. The most common unit of sound measurement is the decibel (dB). The threshold of hearing is considered to be 0 dB, and the range of sounds in normal human experience is 0 to 140 dB. Each 10 decibels reflect a 10-fold increase in noise intensity. Sound waves travel at different frequencies. Because sound drops off with distance, all sound measurements are reported with distance from the source. The decibel scale is further refined to measure

human hearing by using an A-weighted scale (dBA) that counts sounds within the center of human hearing frequencies as louder.

Human response to sound and noise is subjective and can vary greatly from person to person, depending on a variety of factors including the intensity, frequency, and pattern of the sound, the background or ambient sound present without the unwanted sound, and the activity of the individual when the unwanted sound is occurring. Noise can interfere with concentration, communication, and sleep, and at high levels, can result in hearing damage. According to the U.S. Department of Housing and Urban Development's 1985 Noise Guidebook (HUD 1985), permanent physical damage to human hearing can begin with prolonged exposure to noise levels higher than 85 to 90 dBA. Prolonged noise exposure in excess of 75 dBA increases body tension, which can affect blood pressure, functions of the ear, and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. To avoid adverse effects on human physical and mental health in the workplace or in communities, the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) requires the protection of workers from hearing loss when the noise exposure equals or exceeds an 8-hour time-weighted average of 85 dBA (OSHA 2011).

Some people and circumstances are more vulnerable to the adverse effects of noise than others. Known as "sensitive receptors," these include residences, schools, hospitals, long-term care facilities, places of public worship, and libraries. Noise level is often evaluated at the nearest sensitive receptor. Table 4 shows typical noise levels associated with common activities.

Table 4: Noise Levels from Common Areas

Activity	**dBA**
Rock band (near amplifier)	110
Jet fly-over at 1,000 feet	105
Factory machinery	100
Gas lawnmower at 3 feet	95
Tractor	90
Diesel truck 50 mph at 50 feet	85
Garbage disposal	75
Gas lawnmower at 100 feet	70
Normal Speech at 3 feet	65
Heavy traffic at 300 feet	60
Large business office	55
Quiet urban area in day	50
Normal speech at 50 feet	45
Quiet urban area at night	40
Quiet rural area at night	25

The ambient noise level, commonly known as background or pre-project noise levels, is defined as the noise from all sources near and far and usually refers to the noise level that is present before a noise source being studied is introduced. In very quiet environments, virtually any change in local activities would cause an increase in noise levels and a loss of "peace and quiet." Such increases may be considered significant by residents in these areas, even if the measured increase is small.

3.13.2 Discussion of Potential Impacts

A project would normally result in a significant impact to noise if it would substantially exceed or increase the ambient noise levels for adjoining areas or if it exceeded the noise levels recommended in an adopted plan or noise ordinance. Noise impacts are assessed by first determining which project components would generate noise and then comparing the anticipated noise levels with existing noise levels from other sources in the project area and with past land uses practices on the property. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Noise if it would:

a) **Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?** *Less than Significant with Mitigation*

Sonoma County currently does not have a noise ordinance. The Sonoma County General Plan 2020 contains the following policy related to construction equipment and vehicles: Policy NE-1i: County equipment and vehicles shall comply with adopted noise level performance standards consistent with the best available noise reduction technology (Permit Sonoma 2016). The General Plan also provides guidance for reviewing new permanent projects and new transportation projects but does not address review of temporary construction noise.

The closest Sonoma County policy related to construction is Policy NE-2f that states “Where practical, include noise control measures (based on vehicular volume and speed) in County funded construction of new roadways and additional through travel lanes to maintain noise compatibility with noise sensitive land uses. The goal of these measures shall be to prevent the road project from causing the total exterior noise level to increase above 60 dBA Ldn, as estimated adjacent to dwellings and other noise sensitive primary uses. Where full implementation of such measures is not possible, desirable or appropriate, the reasons for that determination shall be stated clearly by County decision makers”.

There is a residence at the Proposed Project site and several residences surrounding the project site, and traffic noise dominates the existing noise environment at the project site. The two residences closest to the project site are both within 40 feet of the roadway. For reference, heavy traffic at a distance of 300 feet has a noise level of 60 dBA and a quiet

urban area during the daytime of 50 dBA (Caltrans 2015). Arnold Drive is much closer to the residences than 300 feet. Houses are located within 20 to 30 feet of the roadway.

There is a residence located at the project site approximately 30 feet from the proposed staging area required for vehicles and stage materials during construction. Construction work on Kohler Creek would be approximately 65 to 100 feet from the residence, and construction work along Sonoma Creek would range from 35 feet to 105 feet from the residence at the project site. Another residence located to the south of the project site is 30 feet from the downstream most proposed streambank stabilization of Sonoma Creek. Other residences are located within 160 to 250 feet around the project site.

Construction of the Proposed Project would require use of heavy equipment, including an excavator, bulldozer, dump truck, chipper, power saws and other hand tools that would generate noise above the existing background level. Construction would occur over a three-month summer construction season and would be temporary; maintenance work could have similar noise producing-activities for a shorter duration, when needed. During project construction activities involving the use of heavy equipment or chainsaws, noise levels could reach a maximum of 85 dBA at a distance of 50 feet (Caltrans 2009), which means the two closest residences would have noise levels around the 85 to 90-dBA range when equipment is running. Noise levels decrease by 6 dB with each doubling of distance, peak construction noise from the project area would reach a maximum of 79 dBA at the residences at least 100 feet away (OEHHA 2015). Although Sonoma County has no noise ordinance, the temporary increase in noise at the closet residences around the project area could be significant. The pipelines are buried; therefore, no change in the ambient noise level would change as a result of operation of the Proposed Project.

Implementation of Mitigation Measure NOI-1: Minimize Construction Noise, would reduce noise impacts on residences in the project vicinity by restricting construction work hours, by requiring mufflers on all vehicles, and by minimizing vehicle idling times. Limiting construction and maintenance activities to the times stated in the mitigation would ensure construction noise would not result in a substantial temporary or periodic increase in ambient noise levels. The construction noise impacts would be reduced to less than significant levels with implementation of Mitigation Measure NOI-1.

Mitigation Measure NOI-1: Minimize Construction Noise

The Sonoma Valley County Sanitation District shall ensure the following construction noise reduction measures are implemented during construction and maintenance of the Proposed Project:

- Noise-generating activities construction and maintenance activities shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Friday and 8:00 a.m. to 6:00 p.m. on Saturdays. No construction or maintenance shall be scheduled on Sundays or holidays.

- Power equipment (vehicles, heavy equipment, and hand equipment) will be equipped with manufacturer's sound-control devices, or alternate sound control that is no less effective than those provided as original equipment. Equipment will be operated and maintained to meet applicable standards for construction noise generation. No equipment will be operated with an unmuffled exhaust. All internal combustion engine driven equipment shall be equipped with intake and exhaust mufflers, which are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines shall be strictly prohibited.
- Staging of construction equipment and all stationary noise-generating construction equipment, such as air compressors and portable power generators, shall be staged as far as practical from residences.

b) Result in generation of excessive groundborne vibration or groundborne noise levels? *Less than Significant*

Noticeable or distressing groundborne vibration is commonly caused by heavy construction such as pile driving, blasting, or heavy-tracked construction equipment, as well as by trains and other vehicles with significant mass and speed. Vibration can cause damage to buildings and roadways depending on the magnitude of vibration and proximity to the vibration-producing action.

There are no adopted State or local policies or standards for groundborne vibration or noise. Vibration can be detectable by humans at levels as low as 0.50 millimeter per second (0.02 inch per second), when background noise and vibration levels are low (Caltrans 2013). Vibration intensity is typically expressed as peak particle velocity (PPV), the maximum speed at which the ground moves while it temporarily shakes, measured in inches per second. The Federal Transit Administration (FTA) has published guidance for assessing vibration impacts (FTA 2006). According to the FTA, fragile buildings can be exposed to groundborne vibration PPV levels of 0.5 inch per second without experiencing damage. This threshold is typically used to evaluate potential vibration impacts.

Construction of the Proposed Project would result in minor groundborne vibration from the operation of construction equipment, including an excavator, dozer, water truck, and compactor. Actual vibration levels would vary depending on soil conditions, construction methods, and equipment used. The typical vibration levels for common construction equipment are shown in Table 5.

Table 5: Groundborne Vibration from Construction Equipment

Equipment	PPV (in/sec) at 25 feet	Attenuated PPV[8] at 50 feet (inch/second)	Attenuated PPV at 100 feet (inch/second)
Compactor/Vibratory Roller	0.210	0.157	0.079
Large bulldozer	0.089	0.067	0.033
Loaded trucks	0.076	0.057	0.028
Small bulldozer	0.003	0.002	0.001

Source: FTA 2006.

As indicated in Table 5, construction of the project would generate vibration levels well below the 0.5 in/sec PPV threshold that could cause groundborne vibration impacts to nearby buildings, even if multiple pieces of construction equipment were operating within 25 feet of a building. Therefore, implementation of the Proposed Project would result in a less-than-significant impact associated with the generation of excessive groundborne vibration or groundborne 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? *No Impact*

The project area is located approximately 5 and half miles north of the Sonoma Valley Airport and 8 miles north of Sonoma Skypark. The project area is outside the geographic boundary of both airports' land use plan. The project and its proximity to the airports would not result in exposure to excessive noise relative to existing baseline conditions for construction workers or staff. Therefore, implementation of the Proposed Project would not expose people residing or working in the project area to excessive noise levels associated with a private airstrip, airport land use plan, public airport or public use airport and there would be no impact.

[8] Attenuated PPV = PPVref c (25/D)1.5 where attenuated PPV = peak particle velocity of the equipment adjusted for distance (inch/second), PPVref – the source reference vibration level at 25 feet (inch/second and D = distance from the equipment to the receptor (feet).

3.14 Population and Housing

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

3.14.1 Setting

The Proposed Project would take place along the creek banks and in-channel near the confluence of Sonoma Creek and Kohler Creek in Glen Ellen, Sonoma County, adjacent to a private residence off Arnold Drive. This area is governed by the land use policies and designations adopted in the Sonoma County General Plan 2020 and is designated is Urban Residential Area (Permit Sonoma 2016).

3.14.2 Discussion of Potential Impacts

A project would normally result in a significant impact to population and housing if it would cause substantial population growth or would remove existing housing. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Population and Housing if it would:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? *No Impact*

The Proposed Project would not include any new housing or businesses or a significant extension of roads or other infrastructure that would potentially lead to future residential or commercial development. The Proposed Project would protect and maintain existing infrastructure and not expand upon its capacity. No new public access would be created; therefore, implementation of the Proposed Project would have no impact associated with

the inducement of substantial unplanned population growth in an area, either directly, such as by proposing new homes and businesses, or indirectly such as through extension of roads or other infrastructure.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? *No Impact*

The Proposed Project would not displace any residents. The resident at the project site would remain at the home during the three-month construction period. Therefore, implementation of the Proposed Project would have no impact associated with the displacement of existing people or housing or necessitate the construction of replacement housing.

3.15 Public Services

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

3.15.1 Setting

The Proposed Project would be located in a residential area of Glen Ellen in Sonoma County. The Sonoma Valley Fire District provides fire, rescue, and paramedic emergency medical services to the town of Glen Ellen, as well as the neighboring cities and communities. The Proposed Project would be within Cal Fire's State Responsibility Area (SRA) for wildfires (Cal Fire 2021). Cal Fire's Glen Ellen Station is located approximately one mile east of the Proposed Project. The Sonoma County Sheriff's Department provides law enforcement to the region of Glen Ellen where the Proposed Project would be located. The Sheriff's Department responds to emergencies and administers first aid.

The site is located within the Sonoma Valley Unified School District. The closest schools include Dunbar Elementary School, located to the northwest between the towns of Glen Ellen and Kenwood and Sonoma Charter, Woodland Star Charter School, Flowery Elementary School and El Verano Elementary School, all located southeast close to the community of Boyes Hot Springs. Jack London State Park and Sonoma Valley Regional Park are located to the east and west of the Proposed Project site.

3.15.2 Discussion of Potential Impacts

A project would normally result in a significant impact to public services if it would result in the need for new or additional public services in order to maintain acceptable service ratios, including response times and other performance objectives. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Public Services if it would:

a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**
    - **Fire protection?** *No Impact*
    - **Police protection?** *No Impact*
    - **Schools?** *No Impact*
    - **Parks?** *No Impact*
    - **Other public facilities?** *No Impact*

The Proposed Project would help protect existing sewer siphon and pipelines from potential damage created by an eroding streambank. The Proposed Project would not change the capacity of the existing sewer system or require any new facilities. The Proposed Project would not increase housing population, or infrastructure in the project area, nor would it alter the existing population distribution temporarily or permanently, which could increase the need for additional governmental facilities. As such, the Proposed Project would have not require any new or physically alter governmental facilities.

No structures would be constructed and stabilization of the streambank would not impact fire protection. All trees, shrubs, vines, sedges and seed mixes would be native; plants would be drought-tolerant and acclimatized to local weather patterns. The plants would be established in a riparian corridor where fire danger is low to begin with, and their local origin, careful selection and initial irrigation would ensure that they would not increase the fuel load in a fire-prone region. During construction, the contractor would take all necessary precautions related to fire risk. The project site is not a public access point, and members of the public would not be onsite during construction. The driveway would be used for emergency access during implementation and operation of the Proposed Project; it would not be blocked with vehicles and a clear path would be maintained during project construction. Following construction, the reconstructed driveway would be used by the property owner to access the residence and by Sonoma Water staff for

maintenance purposes. No existing school or public park is located close enough to the Proposed Project site to feel any negative impacts from the project during its brief construction phase, such as loss of parking or excess noise.

As the Proposed Project would not result in the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire and police protection, schools, parks, or other public facilities, no impact would occur.

3.16 Recreation

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Setting

Several parks and recreational facilities are located within the project vicinity; however, none are located within or adjacent to the project area. Sonoma Valley Regional Park abuts Sonoma Creek approximately 0.1 miles east of the Proposed Project site. The park's main path is the 1.3-mile Valley of the Moon Trail, which passes close (between approximately 100 and 200 feet) to Sonoma Creek approximately 0.1 mile south of the Proposed Project, then follows the general path of the creek until it reaches Arnold Drive after roughly 0.3 mile (SCRP 2023). Suttonfield Lake is a large reservoir adjacent to Sonoma Valley Regional Park, but not part of the Regional Park System (SCRP 2023). It is accessible from the Regional Park, as well as from Arnold Drive, with two informal trail heads/access points south of the access point for the Valley of the Moon Trail, and roughly 0.75 miles away from the project site. The northeastern border of Jack London State Historic Park is roughly 0.5 miles from the Proposed Project site (Jack London State Historic Park 2023). The park is accessed via London Ranch Road, and its two parking lots and entrance kiosk are roughly 0.5 miles from the Proposed Project site.

3.16.2 Discussion of Potential Impacts

A project would normally result in a significant impact to recreation if it would conflict with the established recreational uses of the project area or cause accelerated degradation of a recreational facility. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Recreation if it would:

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? *No Impact*

The Proposed Project would not result in population growth that could increase the use of existing neighborhood or regional parks. The purpose of the Proposed Project is to stabilize the streambank where two sewer pipelines are exposed and active bank erosion continues to occur. There would be no impact on existing neighborhood or regional parks or on any other recreational facility from construction, operation, or maintenance of the Proposed Project.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? *No Impact*

The Proposed Project would not include recreational facilities and would not require the creation or expansion of recreational facilities. The Proposed Project is located behind an existing residence on private land that is not publicly accessible or used for recreational purposes. As such, there would be no impact on existing recreational facilities and the project would not require construction of new recreational facilities.

3.17 Transportation

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b. Conflict with or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	☐	☐	☒	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d. Result in inadequate emergency access?	☐	☐	☐	☒

3.17.1 Setting

The project area is located within the town of Glen Ellen in unincorporated Sonoma County, and the area is governed by the Sonoma County General Plan 2020. The Sonoma County Transportation Authority (SCTA) is the congestion management agency and transportation sales tax authority for Sonoma County. The SCTA is responsible for prioritizing most State and federal funds available to Sonoma County for roadway, transit, bicycle and pedestrian projects, and the agency prioritizes transportation improvement projects and provides project management in partnership with Caltrans on the State Highway system. Sonoma County has a Local Road Safety Plan (LRSP) (SCTPW 2020) that identifies “hotspot” collision areas on roadways within the County and explores potential short-term and long-term corrective measures that may reduce traffic collision rates and improve roadway safety. Arnold Drive is one of the 11 roads that accounted for 40 percent of roadway collisions and 38 percent of all roadway fatalities countywide between 2015 and 2019 with most of the accidents occurring at the intersection of Leveroni Road at Arnold Drive and Arnold Drive at Grove Street. Both locations are outside the project area.

The County of Sonoma General Plan 2020 Circulation and Transit Element includes goals, objectives, and policies that support movement of automobiles and support alternative modes of transportation. Regarding construction of projects that could impact circulation, particularly for bicycles and pedestrians, the General Plan includes the following policy:

> Policy CT-3z: Require road construction projects to minimize their impacts on bicyclists and pedestrians through the proper placement of construction signs and equipment and by providing adequate, safe, well-marked detours. Where it is safe to do so, allow bicyclists and pedestrians to pass through construction areas in order to avoid detours. Where two-way bicycle and pedestrian travel can be safely accommodated in a one-way traffic control zone, adequate signage shall be placed to alert motorists of bicycles and pedestrians in the lane.

The Sonoma County Transportation Authority's (SCTA) Comprehensive Transportation Plan, called Moving Forward 2040, outlines the following goals:

1. Maintain the System
2. Relieve Traffic Congestion
3. Reduce Greenhouse Gas Emissions
4. Plan for Safety and Health
5. Promote Economic Vitality

To support these goals, Moving Forward 2040 proposes road and transit projects that would improve circulation of vehicles and promote alternative modes of transportation.

There is a Sonoma County Transit bus route along Arnold Drive with a bus stop located 920 feet south of the project site and another bus stop approximately 1,000 feet north. There is no bus stop at the Proposed Project access driveway along Arnold Drive. There is no bicycle route along Arnold Drive in or near the project area.

3.17.2 Discussion of Potential Impacts

Effective January 1, 2020, CEQA documents are required to utilize the vehicle miles traveled (VMT) methodology to analyze transportation impacts unless the project meets one or more screening criteria. Vehicle miles traveled refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Automobile delay, represented by level of service (LOS) analysis, does not constitute a significant effect on the environment though it can still be utilized as an augment to the required VMT analysis. Other considerations include conflict with programs, plans, ordinances, or policies that address circulation systems including transit, roadway, bicycle, and pedestrian facilities; an increase in hazards due to road geometry or project design features; and inadequate

emergency access. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Transportation if it would:

a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? *No Impact*

The Proposed Project is not a transportation project. The project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities because there is no roadway work included in the Proposed Project except for improvements to the private driveway accessed from Arnold Drive. No temporary road closures are anticipated with construction or maintenance of the Proposed Project.

b) Conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)? *Less than Significant*

CEQA Guidelines Section 15064.3(b) describes the criteria for analyzing transportation impacts associated with the Proposed Project's projected increase in vehicle miles traveled (VMT), which refers to the amount and distance of automobile travel attributable to a project. Based on the guidance provided in Section 15064.3(b), a qualitative analysis of VMT is appropriate for this project, as potential VMT impacts relate primarily to construction traffic with fewer than 110 vehicle trips per day.

The Proposed Project's construction activities would not generate long-term net increases in VMT. Construction of the Proposed Project would result in temporary transportation increases as a result of workers, equipment, and materials being transported to and from the site during the three-month construction period. This could result in a temporary increase in vehicle trips along Arnold Drive and other nearby roadways. The typical materials used in order to implement the Proposed Project and its associated truck trips are shown in Table 6.

Table 6: Proposed Construction Activities

Materials	**Estimated Truck Trips**
1,075 cubic yards of rock, soil, redwood logs, and rootwads	94
Equipment hauling	3-5

Note: Assume 10 cubic yards' capacity for typical dump trucks

As indicated in Table 6, construction of the project would require three to five trips for equipment hauling and approximately 94 truck trips for materials delivery over the construction period. Additional material deliveries would include planting and erosion control materials, posts, wood for split rail fencing, and miscellaneous construction materials and tools. Construction would also require approximately five vehicle trips per

day for staff and workers throughout the construction period, as well as daily water truck trips for dust control. Maintenance activities would add periodic truck trips depending on the work needed.

The California Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (SB 743 2018) states that "absent substantial evidence indicating that a project would generate a potentially significant level of VMT, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact." As of the date of this Draft IS/Proposed MND, the County of Sonoma has not adopted a VMT significance threshold separate from the Office of Planning and Research's Technical Guidance. As described above, neither construction nor operation of the Proposed Project would generate vehicle trips above the 110 vehicle trips per day. Project construction would require an average of 11 vehicle trips per day during the three-month construction period, well below the 110-trip-per-day screening threshold. Additional user trips associated with operation of the Proposed Project would also be well below this threshold. Maintenance of the Proposed Project would be anticipated to match existing baseline conditions, thus no increase in VMT is anticipated from staff trips for maintenance. Therefore, implementation of the Proposed Project would result in a less-than-significant impact associated with a conflict or inconsistency with CEQA Guidelines Section 15064.3, subdivision (b).

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? *No Impact*

The Proposed Project does not include geometric design features or incompatible uses. There would be no increase in hazards generated by the project or any changes to the existing designs or uses of roadways. Therefore, there would be no impact.

d) Result in inadequate emergency access? *No Impact*

The Proposed Project would not include any structures that would permanently block or constrain roadways and would not result in inadequate emergency access. Construction and maintenance activities would not require lane closures along Arnold Drive, and operation of the Proposed Project would resemble the existing operations at the site. Emergency access to the construction site would be maintained during the entire construction period; therefore, no impact from inadequate emergency access would occur.

3.18 Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §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:	**Potentially Significant Impact**	**Less than Significant with Mitigation Incorporated**	**Less-than-Significant Impact**	**No Impact**
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 §5020.1(k)?	☐	☒	☐	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

3.18.1 Setting

Assembly Bill 52 (AB52) is a CEQA amendment approved September 24, 2014, that provides California Native American tribes on the Native American Heritage Commission (NAHC) list the right to consult with a CEQA lead agency prior to the release of a Negative

Declaration, Mitigated Negative Declaration, or Environmental Impact Report for a project if they have requested AB52 consultation. AB52 also established the Tribal Cultural Resources section of the CEQA Checklist, which requires CEQA lead agencies to consider tribal cultural values when assessing project impacts and mitigation and requires formal notice to tribes who request it and meaningful consultation.

Consultation is defined as the meaningful and timely process of seeking, discussing, and considering carefully the views of others, in a manner that is cognizant of all parties' cultural values and, where feasible, seeking agreement. Consultation shall also recognize the tribes' potential needs for confidentiality with respect to places that have traditional tribal cultural significance.

CEQA defines tribal cultural resources as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that meet the following criteria listed in the Public Resources Code (PRC) Section 21074 definition of tribal cultural resources:

Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

- Included or determined to be eligible for inclusion in the CA Register of Historic Resources.
- Included in a local register of historical resources as defined in PRC Section 5020.1(k). “Local register of historical resources” means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution
- A resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c). A resource may be listed as an historical resource in the California Register if it meets any of the following National Register of Historic Places criteria:

    (1) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.

    (2) Is associated with the lives of persons important in our past.

    (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

    (4) Has yielded, or may be likely to yield, information important in prehistory or history.

    (5) Significant resource to a CA Native American tribe.

- A cultural landscape that meets the above criteria is a tribal cultural resource to the extent that the landscape is geographically defined in terms of size and scope of the landscape.
- A historical resource described in PRC Section 21084.1, a unique archaeological resource described in PRC Section 21083.2(g), or a non-unique archaeological resource as defined in PRC 21083.2(h) if it conforms to the criteria of subdivision (a).

While CEQA evaluates potential impacts on a physical aspect, tribal cultural resources can also include intangible attributes such as their association with historical events, oral history, customs, and traditions. Both tangible and intangible factors should be considered, evaluated, and managed together.

Studies

Evans & De Shazo, Inc. conducted a Historic Property Survey (HPS) of the project area and prepared a report for the Proposed Project in 2022 (Evans & De Shazo 2023). The study included a cultural resources literature search completed at the Northwest Information Center of the California Historical Resources Information System (CHRIS), additional records search and literature review, initial Native American Consultation with the Native American Heritage Commission and outreach to Tribal representatives, and an archaeological survey of the project area.

The Native American Heritage Commission responded that there are no sacred sites within the vicinity of the study area. The NAHC also provide a list of eleven Native American tribal contacts. As recommended by NAHC, a letter was sent to all eleven tribal contacts in February 2022 to request further information about Sacred Sites, Traditional Cultural Tribal Resources, or other properties of traditional religious and cultural importance located within or near the project site, and to inquire about Native American issues related to the Proposed Project.

On February 18, 2022, Evans & De Shazo received a response from Brenda Tomaras of Tomaras & Ogas, LLP, on behalf of Lytton Rancheria via email. To summarize, the Tribe believes that the Proposed Project falls within traditional Pomo territory and that there is a potential for finding tribal cultural resources on the project site. Lytton Rancheria requested a copy of the HPS once complete to determine whether further consultation on the Proposed Project with the appropriate lead agency is necessary. On February 18, 2022, Evans & De Shazo forwarded the email request from Lytton Rancheria to the Sonoma County Water Agency. On April 27, 2022, Evans & De Shazo received a response from Buffy McQuillen, THPO at the Federated Indians of Graton Rancheria (FIGR) via email. The response stated that the project area is within the FIGR's ancestral territory and that there may be tribal cultural resource impacts; therefore, the Tribe requested the results of the HPS and recommendations. On April 28, 2022, Evans & De

Shazo emailed a copy of the draft HPS report to FIGR for review and comment. As of the date of this Draft IS/Proposed MND, no additional comments have been received from Lytton Rancheria or FIGR, nor have any other responses been received from any of the remaining Tribes that were contacted by Evans & De Shazo.

Evans & De Shazo found no prehistoric or historic period artifacts or other indications of an archaeological resource in the project area; however, a bridge/culvert that appears to be at least 50 years of age was identified adjacent and west of the project area. Although the bridge/culvert structure appears to be at least 50 years of age, historical research completed as part of the Historic Property Survey did not reveal the date of construction or any information about the history of the bridge/culvert structure. Furthermore, it is not listed on Caltrans' "Structure Maintenance & Investigations, Historical Significance - Local Agency Bridges" list, and does not appear to have been previously evaluated by a Secretary of Interior-qualified architectural historian; therefore, the NRHP-eligibility of the bridge/culvert structure is currently unknown.

The buried archaeological site sensitivity component of this study indicates that the project area has a moderate potential/sensitivity for buried historic-period archaeological resources, and a low to moderate potential/sensitivity for buried prehistoric archaeological resources; therefore, Evans & De Shazo provided recommendations in the event of an unanticipated discovery of archaeological resources during project-related, ground-disturbing activities.

AB-52 Outreach

On July 5, 2022, the SVCSD notified the Middletown Rancheria, Federated Indians of Graton Rancheria, Kashia Band of Pomo Indians of the Stewart's Point Rancheria, Cloverdale Rancheria of Pomo Indians, Dry Creek Rancheria of Pomo Indians, Guidiville Indian Rancheria, Lytton Rancheria, Mishewal-Wappo Tribe of Alexander Valley, and Pinoleville Pomo Nation regarding the initiation of the Proposed Project in accordance with Assembly Bill AB 52 (AB52) and the CEQA Guidelines. SVCSD received a formal request dated July 21, 2022, from Federated Indians of Graton Rancheria (Tribe) for tribal consultation. As of the date of this Draft IS/Proposed MND, tribal consultation is ongoing.

3.18.2 Discussion of Potential Impacts

A Proposed Project would normally result in a significant impact to tribal cultural resources if it would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §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. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Tribal Cultural Resources if it 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 §5020.1(k)? *Less than Significant with Mitigation*

Public Resources Code Section 21074 defines tribal cultural resources and PRC Section 5020.1(k) defines the local register of historic resources, both of which are included in the Setting section of this Tribal Cultural Resources section.

Evans & De Shazo found no cultural resources, artifacts, indications of fossil soils, or historic resources/or properties that are listed on federal, State, or local inventories were identified within or adjacent to the Proposed Project. There is one potentially historic resource adjacent to the project area; however, the resource would not be affected with implementation of the Proposed Project. No archaeological resources have been identified within the project area. However, the buried archaeological site sensitivity component of this HPS indicates that the project area has a moderate potential/sensitivity for buried historic-period archaeological resources, and a low to moderate potential/sensitivity for buried prehistoric archaeological resources. As a result, ground-disturbing activities associated with the Proposed Project could reveal previously undiscovered buried archaeological resources. Impacts to previously undiscovered buried archaeological resources could result in a potentially significant impact.

Implementation of Mitigation Measure CUL-1: Protection of Inadvertent Discovery of Historical or Archaeological Resources and Worker Awareness Training and Mitigation Measure CUL-2: Protection of Inadvertent Discovery of Human Remains would reduce potential impacts to less-than-significant. Mitigation Measure CUL-1 would ensure that construction work would halt within of the vicinity of an unanticipated find so that a Secretary of Interior-qualified archaeologist and Native American representative could make additional recommendations if required. If the resource is determined to be a significant historical or unique archaeological resource, additional measures would be taken to minimize or avoid significant effects, which may include (but are not limited to): avoidance; capping the site; deeding the site into a permanent conservation easement; or data recovery excavation. Implementation of Mitigation Measure CUL-2 would ensure proper procedures are followed if previously unknown human remains are discovered. Implementation of the two mitigation measures would reduce the potential for the Proposed Project to adversely affect tribal resources from construction and maintenance activities to a less-than-significant level.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead

agency shall consider the significance of the resource to a California Native American tribe. *Less than Significant with Mitigation*

As described above, there are no known historical, archeological, or tribal cultural resources within the Proposed Project area. While no resources have been recorded within the project area and consultation is ongoing, there is potential to uncover previously unidentified tribal cultural resources during ground disturbance. The disturbance or damage of previously unidentified tribal cultural resources would be a potentially significant impact. The District is including a measure to allow for a tribal monitor to be present during project ground disturbing activities. Implementation of Mitigation Measure TCR-1: Tribal Monitor During Ground-disturbing Activities, Mitigation Measure CUL-1: Protection of Inadvertent Discovery of Historical or Archaeological Resources and Worker Awareness Training, and Mitigation Measure CUL-2: Protection of Inadvertent Discovery of Human Remains would minimize the potential for the Proposed Project to adversely affect tribal cultural resources by ensuring that a tribal monitor is present during ground disturbing activities, providing worker awareness training, halting work and implementing recovery or preservation procedures, and would reduce the impact to less than significant.

Mitigation Measure TCR-1: Tribal Monitor During Ground-disturbing Activities

The Sonoma Valley County Sanitation District shall ensure a qualified archaeologist and a representative from a culturally affiliated tribe are present to monitor ground-disturbing activities.

3.19 Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction 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?	☐	☐	☐	☒

3.19.1 Setting

The Proposed Project would take place along the creek banks and in-channel near the confluence of Sonoma Creek and Kohler Creek in Glen Ellen. The Proposed Project would address active erosion threatening two sewer pipelines.

The private residence is connected to municipal utilities, the project may use both power and water from the residence if agreements are made for site irrigation, or water may be imported during construction for such items as construction-period dust control. Import of water is the likely source for construction water needs. Pacific Gas & Electric (PG&E) supplies electricity to the Proposed Project site. Sonoma Water manages and maintains a water supply and transmission system that in turn supplies smaller districts throughout Sonoma County.

3.19.2 Discussion of Potential Impacts

A project would normally result in a significant impact on utilities and service systems if it would exceed or conflict with existing standards, service capacities, and/or entitlements. Potentially significant impacts to utilities and service systems have been evaluated by determining new or altered services that would be required to implement the Proposed Project. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Utilities and Service Systems if it would:

a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?** *No Impact*

The Proposed Project would involve streambank stabilization to protect existing sewer pipe lines and maintenance access, and would not expand the capacity of the existing sewer system. No new pipelines would be installed and no existing pipelines would not be relocated. As such, there would be no impact related to water and wastewater facilities, storm water drainage or other utilities.

An existing gravel driveway on Arnold Drive would provide temporary construction access. The access driveway would be repaired to pre-construction condition following construction to provide year-round access for the resident and for maintenance access.

Water needed during construction of the Proposed Project would be imported or water may be used from the private residence to provide construction-related dust control. Implementation of the Proposed Project would rely on construction equipment powered by diesel fuel and gasoline and would not require or new or expanded electrical infrastructure. Therefore, implementation of the Proposed Project would result in no impact associated with the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or

telecommunications facilities, the construction 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? *No Impact*

During project construction, imported water may be required for dust control. Water would be delivered to the site via water trucks as needed. The Proposed Project would also require minimal amounts of water for seasonal irrigation of revegetated areas during the plant establishment period. Implementation of the Proposed Project would not create new demands for water supply and there would be no long-term need for water. As such, there would be no impact on existing water supply sources.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? *No Impact*

The Proposed Project would protect the existing siphon and sewer pipelines in the project area, but would not expand upon the sewer line system. Implementation of the Proposed Project would not require wastewater treatment and would have no effect on wastewater treatment capacity. Therefore, implementation of the Proposed Project would result in no impact associated with adequate wastewater treatment 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? Less than Significant

The Proposed Project would not create a permanent source of solid waste; however, there would be a small amount of construction debris and green waste that would be hauled away to a landfill. Rocks placed during the emergency repair would be used on-site for the permanent repair. Waste generated from implementation or maintenance of the Proposed Project would be trucked to the Sonoma County Central Landfill or a similar facility that is compliant with federal, State, and local regulations. Rock used during the emergency repair would be reused on-site. The Proposed Project would not generate solid waste in excess of State or local standards or in excess of local infrastructure or otherwise impair attainment of solid waste goals. Therefore, this impact would be less than significant.

e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste? *No Impact*

Construction waste generated during construction or maintenance would be trucked to the Sonoma County Central Landfill or a similar facility that is compliant with federal, State, and local regulations. The Proposed Project would generate a small amount of debris and trash during construction and maintenance activities and would comply with all federal, State, and local management and reduction statutes and regulations related to solid waste. Therefore, implementation of the Proposed Project would result in no impact associated with compliance with federal, State, and local management and reduction statutes and regulations related to solid waste.

3.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b. Due to slope, prevailing winds, and other factors, would the Project exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
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?	☐	☐	☐	☒

3.20.1 Setting

The Proposed Project is located within a State Responsibility Area (SRA) (Cal Fire 2016) for wildfires. Cal Fire is the primary emergency response agency responsible for fire suppression and prevention in SRAs, including the area around the Proposed Project. Sonoma County updated the Sonoma County Community Wildfire Protection Plan (CWPP) in December 2022. The CWPP serves as a planning and assessment tool to

guide wildlife prevention and preparation activities throughout Sonoma County. The project area is outside the boundary of the Sonoma County Wildfire Adapted Project Area as illustrated on the SoCoAdapts website (Permit Sonoma 2023) and is located in an area identified as in a Very High Fire Hazard Severity Zone per the Sonoma County State Responsibility Area Fire Hazard Severity Zone November 2022 map (Cal Fire 2022). The Proposed Project site is located in Sonoma County Evacuation Zone SON-6A5 (County of Sonoma 2020).

3.20.2 Discussion of Potential Impacts

A project would normally result in a significant impact on wildfire if it is located in or near SRA or lands classified as a very high fire hazard severity zone and would increase wildfire risk, increase air pollution concentration from wildfire due to topographic features or prevailing winds, increase risk to people or structures form post-wildfire flooding or landslides, or conflict with an adopted emergency response plan or emergency evacuation plan. In accordance with CEQA, the Proposed Project could result in potentially significant impacts to Wildfire if it would:

a) Impair an adopted emergency response plan or emergency evacuation plan? *No Impact*

The Proposed Project area is identified as a Very High Fire Hazard Severity Zone; however, the project site itself is void of most vegetation except for non-native grasses that have grown along the banks of Sonoma and Kohler creeks and within the proposed staging area that currently serves as a driveway/parking area for vehicles. These grasses are typically mowed as part of the backyard landscaping of the existing residence. The project would be located on a residential property accessed via Arnold Drive. No road closures are proposed during construction or maintenance activities; therefore, the Proposed Project would not impair an adopted emergency response plan nor would it prevent residents in the SON-6A5 zone from evacuating during an emergency. There would be no impact.

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

Implementation of the Proposed Project would not exacerbate wildfire risks in the area as the purpose of the Proposed Project is to stabilize eroding streambanks and stream channels to protect existing buried sewer pipelines. The revegetation efforts associated with the Proposed Project would recreate a vegetated riparian corridor lost due to continue bank erosion. The vegetation would not increase the wildfire risk nor would it expose occupants of nearby residences to pollution concentrations from a wildfire or the uncontrolled spread of a wildlife. Although the Proposed Project area is in a Very High Fire Hazard Severity Zone, the project's bank stabilization and restoration would not

substantially change the sites slope or prevailing winds that could exacerbate wildfire risks. Therefore, there would be a less-than-significant impact.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? *No Impact*

Implementation of the Proposed Project and maintenance activities would not require installation or maintenance of any other associated infrastructure. The existing sewer lines would remain buried and protected with stabilized streambanks. No other infrastructure would be installed. Therefore, there would be no impacts from temporary or ongoing impacts to the environment from associated infrastructure.

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? *No Impact*

Implementation of the Proposed Project would not change the existing fire risk, and therefore, the Proposed Project or any associated maintenance activities would not expose people or structures to risks of downstream flooding or landslides resulting from post-fire conditions.

3.21 Mandatory Findings of Significance

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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, current, and probable future projects.)?	☐	☐	☒	☐
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

3.21.1 Setting

Implementation of the Proposed Project would result in an overall beneficial effect to the environment as it would stabilize eroding streambanks that threaten to undermine and expose buried sewer pipelines. Continued erosion threatens the pipelines, which ultimately could accidentally release wastewater into the environmental if the pipelines rupture. Potentially significant impacts could result from implementation of the Proposed Project; however, mitigation measures have been identified to reduce these impacts to less than significant levels.

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

Potentially significant impacts from the Proposed Project were identified for several resources. For more details, please refer to the impact discussions presented in Sections 3.3 (Air Quality), 3.4 (Biological Resources), 3.5 (Cultural Resources), 3.7 (Geology and Soils), 3.9 (Hazards and Hazardous Materials), 3.10 (Hydrology and Water Quality), 3.13 (Noise), 3.17 (Transportation), and 3.18 (Tribal Cultural Resources). With implementation of the mitigation measures, the Proposed Project would not have a significant adverse impact on the habitat of any plant or animal species or historic or prehistoric resource. Furthermore, the project would not substantially degrade the environment or reduce the level of an endangered or otherwise important plant or animal population below self-sustaining levels or impact a cultural or tribal resource. This impact would be considered less than significant with incorporation of the proposed mitigation measures contained in this document.

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, current, and probable future projects.)** *Less than Significant*

A cumulative impact refers to the combined effect of “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (State CEQA Guidelines Section 15355). As defined by the State of California, cumulative impacts reflect “the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from

individually minor but collectively significant projects taking place over a period of time" (State CEQA Guidelines Section 15355[b]).

Sonoma Valley Sanitation District operates and maintains the wastewater system in Sonoma Valley, including the project area. However, there are no known projects identified in Sonoma or Kohler creeks identified for the foreseeable future. Implementation of the Proposed Project would not result in a cumulatively considerable contribution to any cumulative impacts and the project's incremental contribution to cumulative impacts would be less than significant.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? *Less than Significant*

The Proposed Project consists of bank stabilization efforts designed to protect existing buried sewer pipelines. Implementation of the Proposed Project and any associated maintenance activities would not alter the human population or community in the vicinity. There may be construction-related temporary impacts to humans associated with short-term impacts on aesthetics, air quality, geology and soils, noise, and hydrology and water quality (refer to the impact discussions in Sections 3.1 through 3.20); however, implementation of the proposed mitigation measures would reduce potential temporary impacts to less than significant levels.

4 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.

Signature [redacted] Date: [redacted]

Grant Davis - General Manager

5 Preparers

Sonoma Water

Jessica Martini-Lamb, Environmental Resources Manager

Gregory Guensch, Water Resource Engineer/Geomorphologist

David Cook, Senior Environmental Specialist

Counsel

Verne Ball, Sonoma County Deputy County Counsel

Adam Brand, Sonoma County Deputy County Counsel

Prunuske Chatham, Inc.

Carrie Lukacic, Principal Environmental Planner

Samantha Thomas, Senior Environmental Planner

Lucas Walton, Principal Engineer

Rachel Dovey, Environmental Planner

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Appendix A

Notice of Availability/Intent to Adopt

Sonoma Water

404 Aviation Boulevard
Santa Rosa, CA 95403
Front Desk: 707-526-5370
www.sonomawater.org

Notice of Availability / Notice of Intent to Adopt Initial Study and Mitigated Negative Declaration for the SONOMA VALLEY COUNTY SANITATION DISTRICT SYSTEM PROTECTION PLAN AT KOHLER & SONOMA CREEK CROSSINGS PROJECT

Posted: July 17, 2023

Public Review Period: July 18 to August 16, 2023

Sonoma Valley County Sanitation District (District) is the Lead Agency in accordance with the California Environmental Quality Act (CEQA) for the proposed Sonoma Valley County Sanitation District System Protection Plan at Kohler & Sonoma Creek Crossings Project (Proposed Project). The Proposed Project is a sanitary sewer protection and streambank stabilization project. Sonoma County Water Agency (Sonoma Water) manages the District. The District has prepared a Draft Initial Study and Mitigated Negative Declaration (IS/MND) for the Proposed Project in accordance with the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and Sonoma Water's Procedures for Implementation of CEQA. This notice is to announce that the IS/MND is available for review by the public, agencies, and interested parties. Instructions for submitting comments on the document are included in this notice.

Project Location: The Proposed Project site is located primarily on residential private property at 13965 Arnold Drive, south of the town of Glen Ellen at the confluence of Sonoma Creek and Kohler Creek. Construction work would occur within and along the banks of Kohler and Sonoma creeks. Temporary construction, maintenance, and monitoring easements and new perpetual sewer easements would be required on private parcels surrounding the construction area.

Project Description: The Sonoma Valley County Sanitation District System Protection Plan at Kohler & Sonoma Creek Crossings Project would implement permanent repairs along Kohler and Sonoma creeks and establish new and expanded easements to provide access along the pipeline routes for repair and maintenance purposes. Streambank erosion and downcutting at the site has exposed pipeline segments, and streambank erosion is migrating towards existing maintenance holes in both Kohler and Sonoma creeks. The District implemented emergency repairs at the project site in 2019 to prevent further bank erosion that could expose the sewer pipeline and cause sewage spills. These emergency repairs were considered a temporary means to slow the progression of streambank erosion until a permanent repair could be completed. The Proposed Project would implement the permanent repair.

The Sonoma Valley County Sanitation District System Protection Plan at Kohler & Sonoma Creek Crossings Project would stabilize streambanks and channel beds along Kohler and Sonoma creeks using a combination of rock slope protection, fabric reinforced fill material (FREF),

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log/rootwad revetments, brush mattress, and native vegetation. In addition, the existing siphon across Sonoma Creek would be armored with large boulders to protect against scour. Site improvements would also include revegetation with native plants and installation of habitat improvement elements for California freshwater shrimp, steelhead, Chinook salmon, and other aquatic species in Sonoma Creek. Implementation would require new temporary and permanent sewer pipeline easements.

Materials: A copy of the IS/MND and supporting materials are available at Sonoma Water's Administrative Office at 404 Aviation Blvd., Santa Rosa, CA. The IS/MND is also available online at: https://www.sonomawater.org/environmental-documents

Public Review: The 30-day public review on the IS/MND runs from July 18, 2023 to August 16, 2023. Please include a name, address, and email address of a contact person for all future correspondence on this subject. Written comments must be submitted no later than 5:00 pm on August 16, 2023. Written comments may be addressed to: David Cook, Senior Environmental Specialist, Sonoma Water, 404 Aviation Blvd., Santa Rosa, CA 95403-9019; or emailed to david.cook@scwa.ca.gov.

ADOPTION OF THE INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

Tentative Adoption Schedule: Following the close of the Draft IS/MND public review period, the District's Board of Directors will consider adoption of the IS/MND. The project is scheduled for consideration and adoption by the District's Board of Directors at their regularly scheduled meeting beginning at 8:30 a.m. on **October 3, 2023.** Comments submitted during the Initial Study review period will be included in our report to the Board of Directors.

Appendix B

Sonoma Water Construction Contract Specifications Incorporation of Bay Area Air Quality Management District's Best Management Practices

Project-Level Air Quality Impacts

On April 20, 2022, the Bay Area Air Quality Management District's (BAAQMD) Board of Directors adopted *CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans*. The 2022 California Environmental Quality Act (CEQA) Air Quality Guidelines (BAAQMD, 2023) were developed to assist lead agencies in evaluating air quality and climate impacts from proposed land use projects and plans in the San Francisco Bay Area Air Basin (SFBAAB).

Chapter 5, "Project-level Air Quality Impacts", of the 2022 CEQA Air Quality Guidelines provides guidance on how to conduct an air quality analysis at the project level. Construction-related activities, such as soil disturbance, grading, and material hauling, can result in fugitive dust emissions (e.g., $PM_{2.5}$ and PM_{10}). For a project to have a less-than-significant criteria air pollutant impact related to construction-related fugitive dust emissions, it must implement all Air District's basic best management practices (BMPs) listed in Table 5-2 (BAAQMD 2023). In addition to the mitigation measures described in Table 5-2, projects are strongly encouraged to implement enhanced best management practices to control fugitive dust emissions. These enhanced measures are especially important when there are schools, residential areas, or other sensitive land uses located near the construction site and are described in Table 5-3 (BAAQMD 2023).

The objectives of the BAAQMD guidance are met through Sonoma County Water Agency's (Sonoma Water) construction contract specifications, which have similar requirements as the recommended basic and enhanced construction-related fugitive dust emissions BMPs. Tables A-1 and A-2 identify the BAAQMD's basic and enhanced BMPs and the location of their inclusion in Sonoma Water's standard construction contract specifications. Some BMPs in Sonoma Water's standard construction contract specifications are incorporated by reference to the California Department of Transportation's (Caltrans) Construction Site Best Management Practices (BMP) Manual (Caltrans 2017).

Table A-1. Bay Area Air Quality Management District 2022 CEQA Guidelines - Table 5-2 Basic Best Management Practices for Construction-Related Fugitive Dust Emissions (BAAQMD 2023)

BAAQMD BMP ID	BAAQMD Basic Best Management Practice	Located in Sonoma Water Standard Contract Specifications at
B-1	All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.	Spec Date: 11/2022: By reference to Caltrans Construction Site BMP Manual[1] Section 5.
B-2	All haul trucks transporting soil, sand, or other loose material off-site shall be covered.	Spec Date: 11/2022; Specification Section 01 10 00 paragraph 1.11, C.
B-3	All visible mud or dirt track out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.	Spec Date: 11/2022; Specification Section 01 10 00 paragraph 1.11, G.
B-4	All vehicle speeds on unpaved roads shall be limited to 15 mph.	Spec Date: 11/2022; Contract limits speeds to 10mph on unpaved areas. Specification Section 01 10 00 paragraph 1.11, H.
B-5	All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.	Spec Date: 11/2022; Specification Section 01 10 00 paragraph 1.11, E.
B-6	All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.	Spec Date: 11/2022; Contract limits work during high winds to a maximum of 15 mph. Specification Section 01 10 00 paragraph 1.11, D.
B-7	All trucks and equipment, including their tires, shall be washed off prior to leaving the site.	Spec Date: 11/2022: By reference to Caltrans Construction Site BMP Manual[1] Section 6 for tracking controls, BMP TC-3

BAAQMD BMP ID	BAAQMD Basic Best Management Practice	Located in Sonoma Water Standard Contract Specifications at
B-8	Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.	Spec Date: 11/2022: By reference to Caltrans Construction Site BMP Manual[1] Section 6 for tracking controls, BMP TC-1.
B-9	Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.	Spec Date 11/2022. Signs are specified in Specification Section 01 10 00 paragraph 1.11.

[1] Caltrans (California Department of Transportation). 2017. Construction Site Best Management Practices (BMP) Manual. CTSW-RT-17-314.18.1. May 2017.

Table A-2. Bay Area Air Quality Management District 2022 CEQA Guidelines - Table 5-3 Enhanced Best Management Practices for Construction-Related Fugitive Dust Emissions (BAAQMD 2023)

BAAQMD BMP ID	BAAQMD Enhanced Best Management Practice	Located in Sonoma Water Standard Contract Specifications at
E-1	Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.	Spec Date: 11/2022: By reference to Caltrans Construction Site BMP Manual[1] Section 3 for Temporary Soil Stabilization; BMP SS-1.
E-2	Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.	Spec Date: 11/2022: By reference to Caltrans Construction Site BMP Manual[1] Section 5 for Wind Erosion Control.
E-3	Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and watered appropriately until vegetation is established.	Spec Date: 11/2022: By reference to Caltrans Construction Site BMP Manual[1] Section 3 for Temporary Soil Stabilization.
E-4	Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.	Spec Date: 11/2022: By reference to Caltrans Construction Site BMP Manual[1] Section 3 for Temporary Soil Stabilization.
E-5	Minimize the amount of excavated material or waste materials stored at the site.	Spec Date: 11/2022: By reference to Caltrans Construction Site BMP Manual Section 3 for Temporary Soil Stabilization; BMP SS-1.
E-6	Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days.	Spec Date: 11/2022: By reference to Caltrans Construction Site BMP Manual[1] Section 3 for Temporary Soil Stabilization, BMP SS-1.

[1] Caltrans (California Department of Transportation). 2017. Construction Site Best Management Practices (BMP) Manual. CTSW-RT-17-314.18.1. May 2017.

Appendix C

Special Status Species

Appendix C: Special-status wildlife species evaluated for potential to occur in the Kohler and Sonoma Creek Crossings Project Area.[9]

Species and Status[10] USFWS/CDFW	Natural History & Habitat	Potential for Occurrence within the Project Area
Amphibians		
California giant salamander *Dicamptodon ensatus* --/SSC	Occur in wet coastal forests near permanent and semi-permanent streams and springs. Breeding occurs mostly in spring, but sometimes fall, with eggs laid in water. They transform into land dwelling salamanders with lungs around 18 to 24 months. They consume a wide variety of animals from small invertebrates to salamanders, rodents, and lizard.	**High potential.** California giant salamanders are known to occur in Sonoma Creek. They are known from CNDDB occurrences in Stuart Creek, a tributary to Sonoma Creek (observations documented approximately 1.8 miles upstream of the project area), historic collections near Aqua Caliente, and Carriger Creek on the northeast side of Sonoma Mountain (CDFW 2022a). Salamanders are also reported near Glen Ellen in iNaturalist (2022). Suitable habitat for California giant salamander is present within the project area, and salamanders may be present year-round within Sonoma Creek and in nearby woodlands. The project area supports perennial stream flows required for successful breeding and larval development. Nearby woodlands may support non-breeding upland habitat adjacent to the creek. Due to stream flow and habitat conditions in Kohler Creek, salamanders are not likely to be present in the creek bed at the Kohler Creek Site. However, there is high potential for salamanders to be encountered

[9] Marine, shorebird, and saltmarsh species were omitted from this evaluation as suitable habitat is not present in the project site.

[10] Listing Status: FE-federally listed as endangered, FT-federally listed as threatened, FC-candidate for federal listing, BCC-Bird of Conservation Concern, SE-state listed as endangered, ST-state listed as threatened, Candidate SE-state candidate to be listed as endangered under CESA, Candidate ST-state candidate to be listed as threatened under CESA, FP-State of California fully-protected species, SSC-California Species of Special Concern, and WL-Watch List.

		during instream work at the Sonoma Creek Site. A small area of woody vegetation with understory duff is present adjacent to the staging area and both sites; there is low potential for salamanders to be present in these uplands due to the limited size and complexity.
California red-legged frog *Rana draytonii* FT/SSC	Most common in marshes, streams, lakes, reservoirs, ponds, and other water sources with plant cover. Breeding occurs in deep, slow-moving waters with dense shrubby or emergent vegetation from late November through April. Floating egg masses are attached to emergent vegetation near the water's surface. Tadpoles require 3½ to 7 months to attain metamorphosis. During the non-breeding season, California red-legged frogs can remain at the breeding site (in the presence or absence of water) or move into surrounding non-breeding habitats..	**Not present.** California red-legged frogs are known from the top of Sonoma Mountain; the nearest sightings are over 3.5 miles from the project site (CDFW 2022a). Additional sightings are reported over 5 miles from the project site at Ledson Marsh in Annadel State Park. There are no sightings of California red-legged frog along Sonoma Creek in the upper reaches of the watershed or any nearby tributaries. Suitable habitat for frogs is present in nearby open space lands (e.g., Sonoma Developmental Center), but a local breeding population has not been documented. Sonoma Creek is unlikely to support successful breeding due to the high winter stream flow conditions, lack of suitable backwater areas, and presence of non-native fish. It is unlikely that frogs would move through the site given the lack of nearby documented breeding occurrences.
California tiger salamander – Sonoma county DPS *Ambystoma californiense* FE*/ST	Occupies grassland and foothill regions of California. Breeds during the rainy season in ephemeral ponds and pools. Adult emerge from underground burrows during winter and migrate to breeding ponds. Eggs hatch after 10 to 14 days. Larvae reach maturity in 60 to 94 days and leave pond in late spring or early summer. *Sonoma and Santa Barbara County populations are listed as endangered.	**Not present.** Project site is outside species range with no known occurrences in the surrounding areas.

foothill yellow-legged frog – North Coast DPS *Rana boylii* --/SSC	In or near partly shaded rocky streams that are shallow, slow, and moderately size from sea level to 6,300 feet. Breeding occurs from spring to early summer after high flows have receded. Eggs are laid at downstream end of rocks. Tadpoles require 3 to 4 months to attain metamorphosis. During all season, never found far from water.	**Moderate potential.** Foothill yellow-legged frogs are known to occur in the Sonoma Creek watershed. They are known from CNDDB occurrences in Stuart Creek, a tributary to Sonoma Creek upstream of the project area, historic collections near Aqua Caliente, and Carriger Creek on the northeast side of Sonoma Mountain (CDFW 2022a). Frogs are also reported from a number of Sonoma Creek tributaries by citizen scientist in iNaturalist (2022). Suitable habitat for foothill yellow-legged frog is present within the project area. Frogs may be present year-round in Sonoma Creek and the riparian areas directly adjacent to the creek. The project area supports habitat elements that may support year-round habitat including successful breeding (e.g., rocky stream bottoms, adequate stream flows). Because this species does not venture far from the stream corridor, if present, frogs would mostly be encountered within Sonoma Creek and the immediate margins including within the project site. Due to stream flow conditions in Kohler Creek, frogs may only be present seasonally in the creek at the Kohler Creek Site. This site will most likely be dry during construction and the potential for frogs at this site is low. However, there is moderate potential for frogs to be encountered during instream work at the Sonoma Creek Site given the flow and habitat conditions.
red-bellied newt *Taricha rivularis* --/SSC	A stocky, medium sized salamander of coastal woodlands and redwood forests. Breeding occurs in stream and rivers; newts typically enter breeding sites in February and can breed into May. Clusters of 10 eggs are attached to rocks and roots within a stream. Egg development is temperature depended and can take up to one month. Larvae transform	**Moderate potential.** Red-bellied newts are known from a single CNDDB occurrence within a 5-mile buffer around the project area. This is a collection made in 1977 at Audubon Canyon Ranch (CDFW 2022a). However, citizen scientist sightings are reported in iNaturalist near Glen Ellen for the

	in 4 to 6 months in late summer or early fall. Adults are terrestrial during the non-breeding season. They consume a variety of invertebrates. This species is endemic to California with the most limited distribution of our three species of Taricha. Impacts to streams and vehicular mortality are the primary threats to this species.	Sonoma Valley including several sightings within 1-mile of the project area (iNaturalist 2022). Suitable habitat for red-bellied newt is present within the project area. Newts may be present year-round in Sonoma Creek and the riparian areas directly adjacent to the creek. The project area supports habitat elements that may support year-round habitat including successful breeding (e.g., rocks and roots within creek, adequate flows). Due to stream flow conditions in Kohler Creek, newts may only be present seasonally in the creek at the Kohler Creek Site. This site will most likely be dry during construction and the potential for newts at this site is low. However, there is moderate potential for newts to be encountered during instream work at the Sonoma Creek Site given the flow and habitat conditions. A small area of woody vegetation with understory duff is present adjacent to the staging area and both sites; there is low potential for newts to be present in these uplands due to the limited size and complexity.
Reptiles		
western pond turtle *Actinemys marmorata* --/SSC	A year-round resident of Sonoma County, found in or near permanent or semi-permanent water sources (e.g., ponds, lakes, rivers, streams) with suitable basking sites and underwater retreats. Eggs are laid in shallow holes dug by the female from April through August. Eggs hatch in late summer or fall. In northern California, hatchlings can remain buried until the following spring. Turtles may use uplands for overland migration (movements up to 5 km) and nesting sites (nesting can occur over 500 m from water).	**Moderate potential.** Pond turtles occur year-round in select Sonoma County streams, ponds, and reservoirs. They are known to occur within the Sonoma Creek watershed and mainstem Sonoma Creek. According to unprocessed CNDDB data in BIOS, two western pond turtles were observed basking in mainstem Sonoma Creek on the Sonoma Developmental Center Property in October 2021; this observation is 1.25 miles downstream of the project area (CDFW 2022d). Pond turtles have also been reported downstream near the town of Sonoma and within the Nathanson Creek watershed in 2017 (CDFW 2022a). There are multiple occurrences reported near the top of Sonoma

		Mountain. In the 1990s, there were reported at Ledson Marsh in the upper Sonoma Creek watershed; this sighting is over 5 miles from the project area. In 2014, two turtles were observed in Fern Lake during a citizen science wildlife survey on the Sonoma Developmental Center property; these were likely western pond turtles, as the observer reported they lacked the striping and coloration of introduced red-eared slider (PCI 2015). Kohler Creek is likely to be dry during construction and turtles are unlikely. However, there is moderate potential for turtles to be encountered during instream work at the Sonoma Creek site.
Birds		
Allen's hummingbird *Selasphorus sasin* BCC	This hummingbird breeds from February to July in a narrow strip of coastal forest, scrub, and chaparral from sea level to around 1,000 feet elevation along the West Coast of California. Females nest in areas with tree cover including eucalyptus, redwood, and Douglas-fir. They spend winters in forest edge and scrub clearings and overwinter in Mexico. They consume mostly nectar from flowering plants but also will eat small insects.	**Not likely to occur.** Low quality suitable habitat present within the project site. Species was observed in 2019, 0.6 miles south of the project site (iNaturalist 2023).
bald eagle *Haliaeetus leucocephalus* Delisted/SE	Coastal and inland waterways including rivers, lakes, seashores. Feeds primarily on fish and waterfowl. Nests in large trees near water. Breeds from February through July. Average clutch size is 2. Eggs are incubated for up to 36 days. A year-round resident of Sonoma County. Recently, breeding pairs have reestablished at Lake Sonoma and along the Laguna de Santa Rosa near Sebastopol.	**Not likely to occur.** No suitable breeding habitat present within the project site. Species may fly over project site as suitable habitat is present nearby at Suttonfield Lake.
bank swallow *Riparia riparia*	Nests on earthen banks and bluffs, especially along riverbanks up to 5 feet into the bank. Nests colonially from mid-April to mid-August. Forages over a variety of habitats	**Not likely to occur.** Suitable habitat exists within project site. Historic (1893) record of occurrence approximately 6

--/ST	for flying insects. Drinks water from flight. There are no recently reported occurrences of bank swallow in Sonoma County. Historically, this species may have occurred in Sonoma County during the breeding season.	miles away from site, but species believed extirpated from this portion of its historic range (CDFW 2023).
black swift *Cypseloides niger* --/SSC	A fast flying swift and the largest in North America. Forages in open sky for insects, preferring mountain country and sea cliffs. Breeds in these habitat types often behind waterfalls in deep canyons and sea-bluffs above the surf. A semi-colonial nester. A casual migrant in Sonoma County.	**Not likely to occur.** Project site is outside species breeding range.
Bullock's oriole *Icterus bullockii* BCC/--	These bright birds breed in riparian and open woodlands, favoring large, well-spaced trees or isolated clumps. They eat a variety of insects, arthropods, fruit and nectar. Occasionally they will eat small lizards. The gourd-shaped nest is constructed in a tree 10-25 feet above the ground, commonly near water, where the female will lay 3-7 eggs.	**High Potential.** Suitable habitat is present within the project site. Several observations were documented in 2021, 0.5 miles north and east of the project site (iNaturalist 2023).
burrowing owl *Athena cunicularia* BCC/SSC	A small, ground-dwelling species of grasslands, prairies, rolling hills, and ranchlands. They feed primarily on insects, small mammals, reptiles, birds, and carrion. They hunt from perches, in flight, or hop on the ground for prey. Hunting occurs both during the day and at night. They use abandoned burrows of ground squirrels for roosting and nesting cover. Breeding occurs from March through August, but can begin as early as February and extend into December (Shuford and Gardali 2008). They are a year-round resident throughout most of the state, but migrants from other parts of the west may move into lowland areas in winter (Shuford and Gardali 2008).	**Not likely to occur.** Suitable breeding habitat not present within the project site. There is only a small, isolated, amount of grassland within the project site, with no suitable burrows present. However, species may be present in the areas adjacent to project site. An observation of this species was documented in March 2023, 0.6 miles northeast of the project site in Sonoma Valley Regional Park (iNaturalist 2023).
California spotted owl	Occurs in the southern Cascade Range in northern California, through the Sierra Nevada, across the Transverse and Peninsular Ranges in southern California, and up the Coast	**Not present.** This project site is outside the range of this subspecies.

Strix occidentalis occidentalis BCC	Range through Monterey County. They breed and roost in forests and woodlands with large old trees and snags, dense canopies with multiple layers, and downed woody debris. Large, old trees are the key component for their habitat.	
California thrasher *Toxostoma redivivum* BCC/--	This year-round inhabitant of Sonoma county is most often found in chaparral or will inhabit oak woodlands of the chaparral transition zones. They require copious leaf litter and eat insects, arthropods, berries and some fruits. During breeding season, these birds construct a platform of twigs about 7 feet off the ground in dense shrubbery, where the female will lay 1-6 eggs.	**Not present.** Suitable habitat not present in project site.
Clark's grebe *Aechmorphorus darkii* --/BCC	During the breeding season, this species lives in small numbers or large colonies on large freshwater lakes and marshes with emergent vegetation along the water's edge. They build floating nests, 2-3 feet across, in vegetation near the water's edge. After the breeding season they migrate to saltwater or brackish habitats.	**Not Present.** No suitable habitat present within the project site. Species may fly over project site as moderately suitable habitat is present nearby at Suttonfield Lake.
grasshopper sparrow *Ammodramus savannarum* --/SSC (nesting)	A small, open-country sparrow named for its buzzy insect-like song. Forages for insects and seeds and prefers "short to moderate-height, moderately open grasslands with scattered shrubs" (Shuford and Gardali 2008). Summer resident in Sonoma County in ungrazed or lightly grazed grasslands.	**Not likely to occur.** No suitable habitat within project site, however suitable grassland exists in surrounding areas.
Lawrence's goldfinch *Carduelis lawrencei* BCC/--	This goldfinch is commonly found in open woodlands, usually oak woodlands with some chaparral, weedy fields and near freshwater. They will nest and forage in coastal scrub or streamside habitats. They eat mostly plant seeds, sometimes the larvae of the jumping gall wasp. They will	**Not Present.** Outside species range.

	build their small cup nests usually in a forked tree branch about 10 feet off the ground.	
long-eared owl *Asio otus* --/BCC	This owl tends to forage in open grass or shrublands and open coniferous or deciduous woodlands and roosts in dense vegetation. They will nest in brushy vegetation adjacent to open habitats.	**Not likely to occur.** Suitable roosting and foraging habitat not present within project site, however suitable foraging habitat exists in surrounding areas.
northern spotted owl *Strix occidentalis caurina* FT/ST	Dense forest habitats in northern California. Requires multi-layered canopy cover for roosting sites. Breeding sites include tree or snag cavities or broken tops of large trees. Nocturnal hunter eating mostly small mammals. Permanent year-round resident in Marin County where it is known from breeding occurrences in old-growth and mixed forest habitats.	**Not present.** Outside species range and suitable forested habitat is not present within the project site. The project site is also surrounded by residential development, roadways, with high levels of human activity that would discourage owls from using the Project site.
Nuttall's woodpecker *Picoides nuttallii* BCC	This small black and white woodpecker is a year-round resident in California, ranging from northern California southward to northwestern Baja California. They are found primarily in oak woodlands but will also use wooded suburban areas and woodlands near streams. They excavate a new nesting cavity every year where the female will lay 3-6 eggs. Their breeding season is April through mid-July.	**Moderate potential.** Project site includes limited suitable riparian habitat. Species has been documented just outside the project area.
oak titmouse *Baeolophus inornatus* BCC	Small, gray-brown bird of oak woodlands. Characterized by small pointed crest and nasal tsick-a-dee-dee call that resonates through woodland habitats. Forages for insects and seeds, hopping from branch to branch. Nests in cavities in trees or nest boxes. Oak titmice are a year-round resident in Sonoma County.	**High potential.** No oak woodland is present within the project site but may use other forest types present; species has been documented just outside the project site.

olive-sided flycatcher *Contopus cooperi* BCC/--	Flycatcher of mixed coniferous forests. Forages by sallying for insects from high canopy perch. Nests primarily in conifers; however, can be found in a variety of habitats during migration. In all nesting areas, they use openings or edges in the forest (meadows, rivers and streams, partially logged areas, recent burns, beaver ponds, bogs, and muskegs) and are rarely found in deep, closed forests. Nests constructed on a horizontal branch far from trunk. Summer resident in Sonoma County.	**Not likely to occur.** The project site is within the species breeding range, however, limited suitable breeding habitat is present within the project area.
Swainson's hawk *Buteo swainsoni* --/ST	Predatory hawk of open country. Forages for voles, mice, ground squirrels, small birds, and large insects by diving to the ground. Occupies grasslands, open fields, oak savannah, croplands, and pastures. Typically nests in solitary trees or large distinctive trees adjacent to foraging habitat (agricultural land or grassland). Breeding range includes the Central Valley.	**Not likely to occur.** Typical breeding habitat is not present in the project site as there is no adjacent high-quality foraging habitat. This species may fly over the project site.
Tricolored blackbird *Agelaius tricolor* BCC/SCC (nesting colony)	Colonial-nesting bird in fields, pastures, and wetlands. Nests in tules, cattails, and to a lesser degree willow and brambles. Breeding occurs from mid-April into late July. Typically forage on the ground in large flocks. Year-round resident in Sonoma County, more common in winter. Breeding distribution within the county is limited.	**Not present.** No suitable habitat within project site, however suitable habitat may be present at Suttonfield Lake 0.5 miles to the east. Species may fly over project area.
western grebe *Aechmorphorus occidentalis* --/BCC	The western grebe can be found often on lakes and ocean coasts. They nest on large freshwater lakes and marshes edged with reeds and rushes. They eat mostly fish but will also consume salamanders, crustaceans, marine worms, grasshoppers and aquatic insects. They will build their nest (a mound of vegetation with a depression) near the water's edge in emergent vegetation usually less than 1 foot above the waterline where the females will lay 2-3 eggs.	**Not present.** No suitable habitat present within the project site. Species may fly over project site as moderately suitable habitat is present nearby at Suttonfield Lake.

wrentit *Chamaea fasciata* BCC	A year-round resident in coastal scrub and chaparral along the West Coast. Further inland it resides in thick shrublands in the foothill and desert regions of California. They strip bark from trees and shrubs to weave nests and line them with grass and lichen before the female will lay 1-5 eggs. The breeding season is from March through August.	**Not likely to occur.** Suitable habitat is not present in the project site but is in surrounding areas. This species may fly through the project site.
Yellow-billed cuckoo *Coccyzus americanus occidentalis* FT/--	Woodlands, willow thickets, deciduous forests, abandoned farmland, and areas with scrubby overgrown vegetation along riparian corridors and marshlands. Nesting typically occurs from May through September along low gradient streams with cottonwood-willow groves. Historically, cuckoos nested in Sonoma County (Burridge 1995), but it was last noted as breeding in Sonoma County in 1944. This species is considered a very rare migrant in Sonoma County.	**Not present.** Riparian habitat is present in the project site; however, based on the current distribution of this species and lack of confirmed breeding occurrences in Sonoma County, cuckoos are not expected within the project site.
Yellow rail *Coturnicops noveboracensis* --/SSC	This small rail lives in shallow marshes with short, dense vegetation where it feeds on aquatic invertebrates: snails, beetles, crickets, larvae, grasshoppers, etc. Females lay 4-10 eggs in a small cup nest on the ground, often among sedges of the genus Carex. They build a separate nest for brooding young.	**Not present.** Suitable habitat is not present within the project site.
Mammals		
American badger *Taxidea taxus* --/SSC	Occur in a variety of habitat types (e.g., herbaceous, shrub, or forest habitats) with dry, friable soils. Burrows are often dug in relatively dry, often sandy, usually in areas with sparse overstory cover. Badgers are carnivorous and dig their own burrows. Consume primarily fossorial rodents but will also eat reptiles, insects, eggs, birds, and carrion. They are active year-round, although less active in winter. Mating occurs in	**Not present.** Riparian and bay forest and streambed areas not suitable habitat. No badger burrows observed by PCI within the project site.

	summer and early fall with young (average 2 to 3) born in early spring.	
pallid bat *Antrozous pallidus* --/SSC Western Bat Working Group – high priority species	Grassland, shrubland, forest, and woodland habitats at low elevations up through mixed coniferous forests. A social species forming small colonies. Roosting sites include caves, mines, crevices, buildings, and hollow trees during day, more open sites used at night. At low elevations, locally common in California.	**Moderate potential**. Pallid bats are known throughout Sonoma County. Bats could use the larger trees for roosting and forage over the site.
Fish		
Chinook salmon – Central Valley fall/late fall-run ESU *Oncorhynchus tshawytscha* SC/SSC	Majority of life spent in open ocean. Reproduces in streams and rivers. Includes fall-run fish in the Sacramento and San Joaquin River Basins and their tributaries, east of Carquinez Strait.	**Not likely to be present.** A small run of Chinook salmon is known from the Sonoma Creek watershed. These fish are almost exclusively of Sacramento/San Joaquin River origin and generally referred to as hatchery strays, as the Sacramento runs are now dominated by hatchery fish. Most of the local systems are dominated by fall-run fish. Historically, spring-run Chinook dominated the overall runs and commercial fisheries prior to the installation of dams on many snow melt systems (Pecharich 2022). Fall-run Chinook are not known to be prevalent within the watershed, but a small number of fish are occasionally observed (SEC 2001). Most recently, in the fall of 2021, SEC documented successful spawning of Chinook salmon in mainstem Sonoma Creek (SEC 2021). Suitable habitat for Chinook salmon is present within the project area. However, Chinook salmon typically emigrate out of freshwater systems in late February through June. It is uncommon to find juvenile Chinook rearing in freshwater during summer (Pecharich 2022). Construction of the

		project will begin after June 15 and after juvenile Chinook salmon have emigrated from the watershed. Work will be complete before adults return in the fall. Chinook salmon are not likely to be present within the project area during construction.
Delta smelt *Hypomesus transpacificus*	A small, short-lived fish of the Bay-Delta Estuary. Occupies habitats with a wide range of salinities, but prefers 2 to 7 ppt (parts salt per thousand parts water). Consumes primarily zooplankton but will take small insect larvae. Spawns in side channels and sloughs from February through July. Exhibits a one-year life cycle.	**Not present.** Suitable estuarine habitat is not present within the project site.
longfin smelt *Spirinchus thaleichthys* Proposed FE/--	This anadromous species can tolerate a wide range of salinity and historically were found in the San Francisco Estuary, the Sacramento/San Joaquin delta, Humboldt Bay, and the Estuaries of the Eel and Klamath Rivers. They use a variety of habitats from nearshore waters, to estuaries and lower portions of freshwater streams. They typically live for two years and are 90-124 mm fork-length. Spawning occurs November through May with a peak from February through April.	**Not present.** Project site is too far upriver of normal species range.
steelhead-central California coast DPS – winter run *Oncorhynchus mykiss irideus* FT/--	Spawn in fresh water and mature at sea. Steelhead generally spend their first and sometimes second year of life in freshwater creeks and then one to four years at sea. They return to spawn in their natal streams as many as four times as they do not always die after spawning like other salmonids. Juvenile steelhead generally occupy glides and riffles and less frequently pools. Adult steelhead spawn from December through April in cool, clear, well-oxygenated streams with pea to apple-sized gravel, usually at the head of a riffle. Federal listing applies to all coastal runs from	**Present.** Steelhead are known to occur throughout much of Sonoma Creek and are assumed to occur in the project site.

	Russian River south to Soquel Creek; it includes San Francisco and San Pablo Bay basins but excludes the Sacramento-San Joaquin Rivers.	
tidewater goby *Eucyclogobius newberryi* FE/SSC	Small gray-brown fish, rarely exceeding 2-inches in length. Occupies, shallow coastal lagoons, brackish marshes, and lower stream reaches with still water along California coast. Breeding occurs in late-spring after sandbars close and conditions are favorable. Nests dug in the substrate. Gobies are an annual species.	**Not present.** Suitable habitat is not present within the project site.
Invertebrates		
California freshwater shrimp *Syncaris pacifica* FE/SE	A small, 10-legged crustacean occurring in low-elevation and gradient (less than 1%) perennial streams in Marin, Sonoma, and Napa counties. They occur in shallow pools away from the main current where they feed primarily on detritus and, to a lesser extent, on decomposing vegetation, dead fish, and invertebrates. Most shrimp appear opaque to nearly transparent with colored flecks across their bodies. Females can appear dark brown to purple under certain conditions. Breeding occurs in the autumn, but young do not hatch until the following May or early June. After breeding, female shrimp carry the fertilized eggs attached to their abdominal swimming legs throughout the winter. The freshwater shrimp has been extirpated from many streams and continues to be threatened by introduced predators, pollution, and habitat loss.	**Present.** California freshwater shrimp are known to occur in Sonoma Creek within the project site.
Callippe silverspot butterfly *Speyeria callippe callippe*	Historically, occupied grassland habitats in seven counties surrounding the San Francisco Bay. Now known from only five locations. Larvae feed on Johnny jump-up (Viola pedunculata) where eggs are laid. Adult flight season from mid-May to mid-July. Adults known to feed on flowers of a	**Not present.** Suitable habitat not present within the project site.

FE/--	number of species. Hilltops and ridges are important breeding grounds.	
Crotch bumble bee *Bombus crotchii* Candidate SE	This social bee prefers a hotter, drier environment than other bumblebee species. Habitat includes grasslands and shrublands, with nests often located in abandoned rodent burrows, grass tufts, old bird nests, rock piles, or dead tree cavities. They forage on milkweed, dusty maidens, lupine, medics, phacelias, sages, clarkias, poppies, and wild buckwheats. Workers are active from April to August and queen bees are active from March until May. Only mated queens overwinter and conduct all the foraging and care for the colony in early spring until the first workers emerge and assist with these duties.	**Not likely to occur.** Only a small amount of suitable habitat (grassland) is present within the project site. Only Sonoma County record is a historic sighting (1910) 2.5 miles away from project site (CDFW 2023).
Monarch butterfly – California overwintering population *Danaus plexippus* FC/--	Winters in coastal California where it utilizes wind-protected tree groves (e.g., eucalyptus, Monterey pine and cypress) along the coast. Roosts site typically located close to nectar and water sources.	**Not present.** Overwintering habitat is not present within the project site. Suitable larval host plants are also not present.
western bumble bee *Bombus occidentalis* FC/Candidate SE	This social bee is medium sized and short-tongued: queens 20-21 mm, workers 9-15 mm with three main color variants. Males (drones), females (sterile workers), and queens have different appearance. Generalist foragers on flower nectar and pollen. Habitat is varied including: open grassy areas, prairie, urban parks and gardens, sagebrush steppe, mountain meadows to alpine tundra. Nests underground, primarily in cavities and burrows dug by small mammals, such as ground squirrels, and in open west-southwest slopes bordered by trees, although a few nests have been reported	**Not likely to occur.** Small amount of suitable habitat present within the project site. Historic (1960) record of occurrence approximately 2.5 miles away from site, but species believed extirpated from this portion of its historic range (CDFW 2023).

	from above-ground locations such as in logs among railroad ties. Mate in fall, queens overwinter in ground then in spring they emerge and find an appropriate nest site for the colony. Multiple broods laid over the course of the summer.	

Appendix C: Special-status plant species evaluated for potential to occur in the Kohler and Sonoma Creek Crossings Project Area.[11]

Scientific Name	Common Name	Listing Status[12] USFWS/ CDFW/ CRPR [2]	Life Form, Blooming Period, and General Habitat	Potential for Species Occurrence
Allium peninsulare var. franciscum	Franciscan onion	--/--/ 1B.2	Perennial bulbiferous herb. Blooms May-June. Woodland, grassland (clay, volcanic, often serpentinite). 52-300 m.	**Not likely to occur** - No woodland habitat is present on the site, only bay forest; only soils in the project area are gravelly or coarse sand. One occurrence in 2006 about 6 miles away.
Alopecurus aequalis var. sonomensis	Sonoma alopecurus	FE/--/ 1B.1	Perennial herb. Blooms May-July. Freshwater marshes and swamps, riparian scrub. 5-365 m.	**Not likely to occur -** No suitable riparian scrub or marsh habitat present. One occurrence from 2020 is 7 miles away.
Amorpha californica var. napensis	Napa false indigo	--/--/ 1B.2	Perennial deciduous shrub. Blooms April-July. Broadleafed upland forest (openings), chaparral, woodland. 120-2000 m.	**Not likely to occur -** No woodland habitat present; bay forest present but native understory is limited and species not observed. One occurrence 1.7 miles away from 2018.
Amsinckia lunaris	bent-flowered fiddleneck	--/--/ 1B.2	Annual herb. Blooms March-June. Coastal bluff scrub, woodland, grassland. Typically on gravelly slopes, grassland, openings in woodland, often serpentine. 3-500 m.	**Not present -** No woodland present. Bay forest is present but native understory is limited and species not observed; grassy areas are highly disturbed. Serpentine soils are not present. No recent or local occurrences near the project.

[11] Marine, shorebird, and saltmarsh species were omitted from this evaluation as suitable habitat is not present in the project site.

[12] Listing Status Codes: USFWS: FE - Listed as endangered; FT - Listed as threatened. CDFW: SE - Listed as endangered; ST - Listed as threatened; SR - Listed as rare. CRPR (California Rare Plant Rank): 1A - Believed to be extirpated; 1B - Rare or endangered in California and elsewhere; 2 - Rare or endangered in California, more common elsewhere; 3 - Plants for which we need more information. Suffixes: .1 Seriously endangered in California; .2 Fairly endangered in California; .3 Not very endangered in California.

Scientific Name	Common Name	Listing Status[12] USFWS/ CDFW/ CRPR [2]	Life Form, Blooming Period, and General Habitat	Potential for Species Occurrence
Arctostaphylos stanfordiana ssp. *decumbens*	Rincon Ridge manzanita	--/--/ 1B.1	Perennial evergreen shrub. Blooms February-April. Chaparral (rhyolitic), woodland. 75-370 m.	**Not present -** No woodland present. **S**pecies not observed. One occurrence 6 miles away from 2007.
Astragalus claranus	Clara Hunt's milk-vetch	FE/ST/ 1B.1	Annual herb. Blooms March-May. Chaparral, woodland, meadows and seeps, grassland (serpentinite or volcanic, rocky, or clay soils). 75-275 m.	**Not present** - No suitable habitat present. Only soils in the project area are gravelly or coarse sand. One occurrence 11 miles away from 2009.
Balsamorhiza macrolepis var. macrolepis	big-scale balsamroot	--/--/ 1B.2	Perennial herb. Blooms March-June. Chaparral, woodland, grassland; sometimes serpentinite. 90-1555 m.	**Not likely to occur** – Grassland habitat is present in the project area but is highly disturbed. No recent or local occurrences near the project.
Blennosperma bakeri	Sonoma sunshine	FE/SE/ 1B.1	Annual herb. Blooms March-May. Vernal pools within grassland settings. 10-110 m.	**Not present** - No suitable habitat present. 2 occurrences less than one mile away from 2017.
Brodiaea californica var. leptandra	narrow-anthered California brodiaea	--/--/ 1B.2	Perennial bulbiferous herb. Blooms May-July. Broadleafed upland forest, chaparral, woodland, lower montane coniferous forest, grassland (volcanic). 110-915 m.	**Not present** - Bay forest is present at the site but no volcanic soils. No recent or local occurrences near the project.
Ceanothus confusus	Rincon Ridge ceanothus	--/--/ 1B.1	Perennial evergreen shrub. Blooms February-June. Closed-cone coniferous forest, chaparral, woodland (volcanic or serpentinite). 75-1065 m.	**Not present -** No woodland present. Only soils in the project area are gravelly or coarse sand. One occurrence 8 miles away from 2007.

Scientific Name	Common Name	Listing Status[12] USFWS/ CDFW/ CRPR [2]	Life Form, Blooming Period, and General Habitat	Potential for Species Occurrence
Ceanothus divergens	Calistoga ceanothus	--/--/ 1B.2	Perennial evergreen shrub. Blooms February-March. Chaparral (volcanic or serpentinite). 170-950 m.	**Not present** - No suitable habitat present. One occurrences less than 5 miles away, from 1974.
Ceanothus purpureus	holly-leaved ceanothus	--/--/ 1B.2	Evergreen shrub. Blooms February-June. Chaparral and woodland. 120-640 m.	**Not present** - No suitable habitat present. No recent or local occurrences near the project.
Ceanothus sonomensis	Sonoma ceanothus	--/--/ 1B.2	Evergreen shrub. Blooms February-April. Chaparral (sandy, serpentine, or volcanic). 215 - 800 m.	**Not present** - No suitable habitat present. Multiple recent occurrences ranging from 1.5 to 5 miles from the site.
Cordylanthus tenuis ssp. *capillaris*	Pennell's bird's-beak	FE/SR/ 1B.2	Annual herb, hemiparasitic. Blooms June-September. Closed-cone coniferous forest, chaparral (serpentinite). 45-305 m.	**Not present** - No suitable habitat present. No recent or local occurrences near the project.
Delphinium luteum	golden larkspur	FE/SR/ 1B.1	Perennial herb. Blooms March-May. Rocky locations in chaparral, coastal prairie, coastal scrub. 0-100 m.	**Not present** - No suitable habitat present. No recent or local occurrences near the project.
Downingia pusilla	dwarf downingia	--/--/ 2.2	Annual herb. Blooms March-May. Grassland (mesic), vernal pools. 1-445 m.	**Not present** - No suitable habitat present. Two recent occurrences within 1- 3.5 miles of the site from 2006 and 2010.
Erigeron greenei	Greene's narrow-leaved daisy	--/--/ 1B.2	Perennial herb. Blooms May-September. Chaparral (serpentinite or volcanic). 80-290 m.	**Not present** - No suitable habitat present. No recent or local occurrences near the project.
Eryngium jepsonii	Jepson's coyote-thistle	--/--/ 1B.2	Perennial herb. Blooms April - August. Wetlands, moist clay soil. < 500 m.	**Not present** - No suitable habitat or soils present. No recent or

Scientific Name	Common Name	Listing Status[12] USFWS/ CDFW/ CRPR [2]	Life Form, Blooming Period, and General Habitat	Potential for Species Occurrence
				local occurrences near the project.
Fritillaria liliacea	fragrant fritillary	--/--/ 1B.2	Perennial bulbiferous herb. Blooms February-April. Woodland, coastal prairie, coastal scrub, grassland (often serpentinite). 3-410 m.	**Not likely to occur** – Grassland habitat is present, but is highly disturbed, and does not include serpentine soils. Three occurrences, 10 miles away from 2016.
Hemizonia congesta ssp. congesta	white seaside tarplant (congested-headed hayfield tarplant)	--/--/ 1B.2	Annual herb. Blooms April-November. Grassland, sometimes roadsides. 20-560 m.	**Not likely to occur** – Grassland present is highly disturbed. One occurrence, 5 miles away from 2013.
Hesperolinon congestum	Marin western flax	FT/CT/ 1B.1	Annual herb. Blooms April-July. Serpentinite chaparral and grassland. 5-370 m.	**Not present** - No suitable habitat present; grassy areas are highly disturbed. Serpentine is not present. No recent or local occurrences near the project.
Horkelia tenuiloba	thin-lobed horkelia	--/--/ 1B.2	Perennial herb. Blooms May-July. Broadleafed upland forest, chaparral, grassland (mesic openings, sandy).	**Not likely to occur –** Grassland present but highly disturbed. No recent occurrences near the project.
Lasthenia burkei	Burke's goldfields	FE/SE/ 1B.1	Annual herb. Blooms April-June. Meadows and seeps (mesic), vernal pools. 15-600 m.	**Not present –** Grassland present is highly disturbed; no vernal pool habitat.
Lasthenia conjugens	Contra Costa goldfields	FE/--/ 1B.1	Annual herb. Blooms March-June. Alkaline playas, vernal pools within grassland or woodland. 0-470 m.	**Not present -** No vernal pools present. One occurrence from 2011 10 miles away.
Layia septentrionalis	Colusa layia	--/--/ 1B.2	Annual herb. Blooms April-May. Sandy or serpentinite soil in chaparral, woodland, and grassland.	**Not likely to occur** – Grassland present is highly disturbed. One occurrence, 10 miles away from 2015.

Scientific Name	Common Name	Listing Status[12] USFWS/ CDFW/ CRPR [2]	Life Form, Blooming Period, and General Habitat	Potential for Species Occurrence
Legenere limosa	legenere	--/--/ 1B.1	Annual herb. Blooms April-June. Vernal pools. 1 -880 m.	**Not present** - No suitable habitat present. One occurrence is within 5 miles from the site, but is extirpated.
Leptosiphon jepsonii	Jepson's leptosiphon	--/--/ 1B.2	Annual herb. Blooms March-May. Chaparral, woodland; open to partly shaded grassy slopes on volcanic soils or periphery of serpentine substrates. 100-500 m.	**Not present -** No suitable habitat or soil types present. One occurrence 3.5 miles away from 2004.
Limnanthes vinculans	Sebastopol meadowfoam	FE/SE/ 1B.1	Annual herb. Blooms April-May. Meadows and seeps, grassland, vernal pools (mesic). 15-305 m.	**Not present** - No suitable habitat present; no vernal pools, grassy areas are highly disturbed. No recent occurrences near the project.
Lupinus sericatus	Cobb Mountain lupine	--/--/ 1B.2	Perennial herb. Blooms March-June. In stands of knobcone pine-oak woodland, on open wooded slopes in gravelly soils; sometimes on serpentine. 180-1500 m.	**Not present** - No suitable habitat present. Two occurrences present within 2.5 and 5 miles of the site from 1997 and 1998.
Navarretia leucocephala ssp. *bakeri*	Baker's navarretia	--/--/ 1B.1	Annual herb. Blooms April-July. Vernal pools and swales; adobe or alkaline soils, in woodland, lower montane coniferous forest, meadows/seeps, grassland. 5-1740 m.	**Not present** - No vernal pools present; grassy areas are highly disturbed. Three occurrences 3.5 to 5.5 miles from the site, from 1975, 1990, and 2018.
Penstemon newberryi var. *sonomensis*	Sonoma beardtongue	--/--/ 1B.3	Perennial herb. Blooms April-August. Rocky chaparral. 700-1370 m.	**Not present** - No suitable habitat present. No recent occurrences near the project.

Scientific Name	Common Name	Listing Status[12] USFWS/ CDFW/ CRPR [2]	Life Form, Blooming Period, and General Habitat	Potential for Species Occurrence
Sidalcea oregana ssp. *valida*	Kenwood marsh checkerbloom	FE/SE/1B.1	Perennial rhizomatous herb. Blooms June-September. Freshwater marshes and swamps. 115-150m.	**Not present** - No suitable habitat present. Known only from Kenwood Marsh and Knight's Valley.
Streptanthus hesperidis	green jewelflower	--/--/ 1B.2	Annual herb. Blooms May - July. Serpentine barrens, associated with openings in chaparral, oak woodland, and cypress woodland. 250 - 600 m.	**Not present** - No suitable habitat present. No recent occurrences near the project.
Trifolium amoenum	two fork clover	FE/--/ 1B.1	Annual herb. Blooms April-June. Coastal bluff scrub, grassland (sometimes serpentinite). Open, sunny sites, swales. 5-415 m.	**Not present -** No suitable habitat present; grassy areas are highly disturbed. No recent occurrences near the project.
Viburnum ellipticum	oval-leaved viburnum	--/--/ 2B.3	Perennial deciduous shrub. Blooms May-June. Chaparral, woodland, lower montane coniferous forest. 215-1400 m.	**Not likely to occur -** No suitable habitat is present. No recent occurrences near the project.