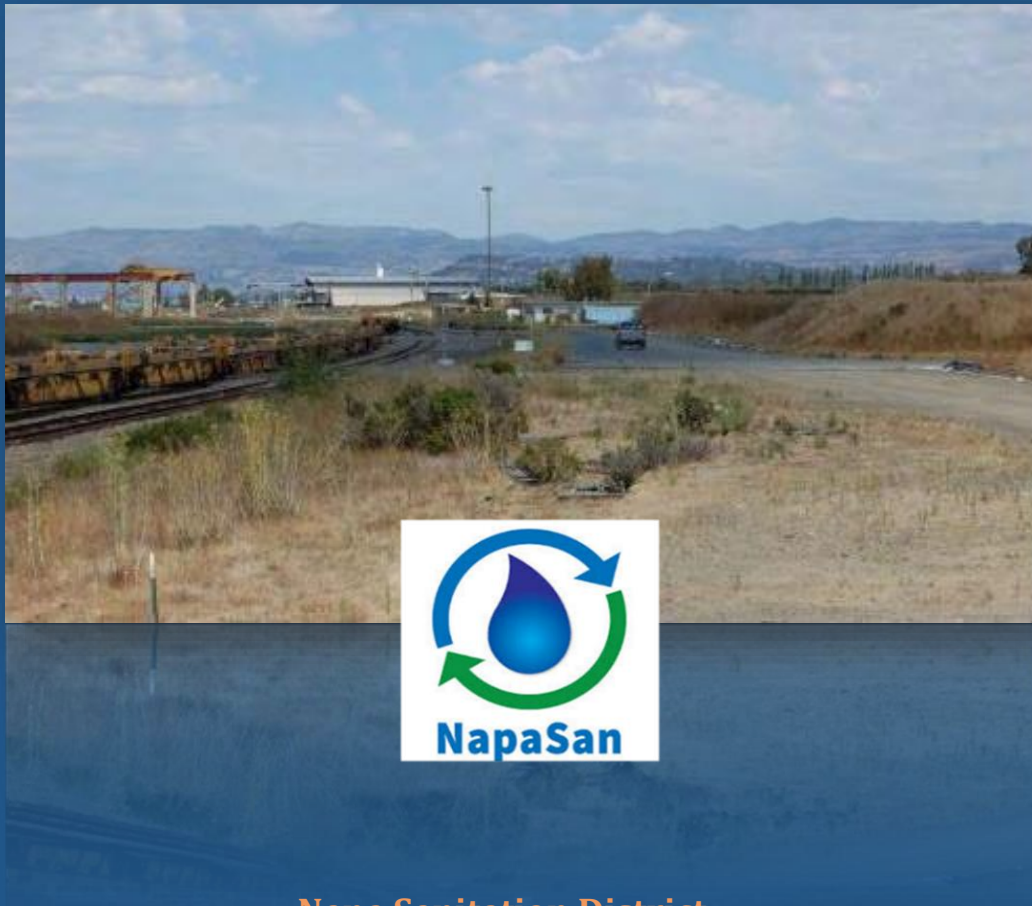


**Initial Study and
Mitigated Negative Declaration
66-inch Trunk Sewer Rehabilitation Project:
Kaiser Road to Soscol Water Recycling Facility
(CIP 19701)**



**Napa Sanitation District
1515 Soscol Ferry Road
Napa, California 94558**

March 2020





NapaSan

Initial Study and Mitigated Negative Declaration

66-inch Trunk Sewer Rehabilitation: Kaiser Road to SWRF (CIP 19701)

Prepared for:

Napa Sanitation District
1515 Soscol Ferry Road
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COMMITMENT & INTEGRITY DRIVE RESULTS

**Napa
Sanitation
District**
March 2020

TABLE OF CONTENTS

SECTION	PAGE NO.
1. INTRODUCTION.....	1-1
1.1 Purpose of this Document	1-1
1.2 Scope of this Document	1-1
1.3 CEQA Process	1-2
1.4 Impact Terminology	1-2
2. PROJECT DESCRIPTION.....	2-1
2.1 Project Overview	2-1
2.1.1 Project Background	2-5
2.1.2 Project Purpose and Need.....	2-5
2.2 Environmental Setting	2-5
2.3 Proposed Project Description	2-6
2.3.1 Cured-in-Place Pipe.....	2-7
2.3.1.1 Access Pathways	2-10
2.3.1.2 Cure Water	2-10
2.3.1.3 Manhole Replacement and Rehabilitation	2-11
2.3.1.4 Sanitary Sewer Bypass for CIPP	2-11
2.3.2 Spiral Wound Lining.....	2-12
2.3.2.1 Access Pathways	2-13
2.3.2.2 Manhole Rehabilitation	2-13
2.3.3 Sanitary Sewer Bypass Options for Rehabilitation	2-13
2.3.3.1 Bypass Piping Size Options	2-13
2.3.3.2 Bypass Piping Alignment Options	2-13
2.3.3.3 Sideline Bypass Systems	2-14
2.3.3.4 Bypass Pipeline Construction Sequencing/Set-Up Options	2-15
2.3.4 Sediment Removal and Disposal.....	2-17
2.4 Construction Activities / Methods	2-17
2.4.1 Construction of the Bypass Pipeline and Pump System.....	2-17
2.4.2 Cleaning and Rehabilitation of 66-inch Sewer	2-18
2.4.3 Disassembly and Site Restoration	2-19
2.4.4 Construction Schedule.....	2-19
2.4.5 Equipment / Staging / Trips	2-19
2.4.6 Construction Best Management Practices.....	2-20
2.5 Operation and Maintenance	2-22
2.6 Right-of-Way / Permits / Approvals	2-22
3. ENVIRONMENTAL CHECKLIST FORM.....	3-1
3.1 Aesthetics	3-4
3.2 Agriculture and Forestry Resources	3-6
3.3 Air Quality	3-9
3.4 Biological Resources	3-14
3.5 Cultural Resources	3-26
3.6 Energy	3-29
3.7 Geology and Soils	3-32

3.8	Greenhouse Gas Emissions	3-34
3.9	Hazards and Hazardous Materials	3-37
3.10	Hydrology and Water Quality	3-41
3.11	Land Use and Planning	3-46
3.12	Mineral Resources	3-47
3.13	Noise	3-47
3.14	Population and Housing	3-55
3.15	Public Services	3-56
3.16	Recreation	3-57
3.17	Transportation	3-58
3.18	Tribal Cultural Resources	3-60
3.19	Utilities and Service Systems	3-62
3.20	Wildfire	3-65
3.21	Mandatory Findings of Significance	3-69
4.	REPORT PREPARATION	4-1
4.1	Report Authors	4-1
4.2	References	4-1

APPENDICES

Appendix A: CalEEMod Output

Appendix B: Biological Resources Assessment

Appendix C: Preliminary Jurisdictional Delineation

Appendix D: Historical Property Survey Report / Finding of Effect

TABLES

Table 2-1: Construction Equipment	2-20
Table 2-2: Private Property Access	2-23
Table 2-3: Permits and Approvals	2-26
Table 3-1: Criteria Pollutant Attainment Status – San Francisco Bay Area Air Basin	3-10
Table 3-2: Proposed Project Average Daily Construction Emissions: Unmitigated vs. Mitigated (lbs/day)	3-12
Table 3-3: Summary of Potentially Jurisdictional Features Mapped within the Study Area	3-17
Table 3-4: Overall Temporary Impacts to Wetlands from All Bypass Alignments	3-21
Table 3-5: Construction Fleet Summary	3-30
Table 3-6: Construction Trip Summary	3-31
Table 3-7: Proposed Project GHG Emissions (MTCO ₂ e/year)	3-36
Table 3-8: Napa County Maximum Noise Levels at Affected Property Lines (dBA)	3-50
Table 3-9: Typical Construction Equipment Noise Levels	3-52
Table 3-10: Typical Construction Equipment Vibration Levels	3-54

FIGURES

Figure 2-1: Overview of 66-inch Trunk Sewer to be Rehabilitated	2-2
Figure 2-2: Proposed Rehabilitation and Bypass Discharge Alignments	2-3
Figure 2-3: City and County Boundaries and Zoning Designations	2-4

Figure 2-4: Typical CIPP Over-the-Hole Wet Out Laydown Area	2-7
Figure 2-5: Potential CIPP Liner Launch Work Area Layout at Manhole R70-013.....	2-8
Figure 2-6: Potential CIPP Liner Launch Work Area Layout at Manhole R71-001.....	2-8
Figure 2-7: Potential CIPP Liner Launch Work Area Layout at Manhole R72-002.....	2-9
Figure 2-8: Potential CIPP Liner Launch Work Area Layout at the New Manhole	2-9
Figure 2-9: Potential CIPP Liner Launch Work Area Layout at Manhole Q73-001	2-10
Figure 2-10: Interlocking Edges of PVC Profile Strip for Sekisui SPR™ TF Spiral Wound Liner.....	2-13
Figure 2-11: Segmental Bypass System Layout Option.....	2-16
Figure 3-1: Farmland.....	3-8
Figure 3-2: FEMA Flood Zones.....	3-34
Figure 3-3: Fire Hazard Severity Zones in State Responsibility Areas.....	3-67
Figure 3-4: Very High Fire Hazard Severity Zones in Local Responsibility Areas.....	3-68

Acronym List

ABAG	Association of Bay Area Governments
APE	Area of Potential Effect
BAAQMD	Bay Area Air Quality Management District
BMPs	Best Management Practices
CAP	Clean Air Plan
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CFGC	California Fish and Game Code
CHRIS	California Historical Resources Information System
CIPP	Cured-in-Place Pipe
CNEL	Community Noise Equivalent Level
CNDD	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	US Army Corps of Engineers
CRLF	California red-legged frog
CTS	California tiger salamander
CWA	Clean Water Act
dB	Decibel
dBA or dB(A)	A-weighted decibel
DBH	Diameter at breast height
DTSC	(California) Department of Toxic Substances Control
FEMA	Federal Emergency Management Agency
FHWA	U.S. Department of Transportation Federal Highway Administration
FTA	U.S. Department of Transportation Federal Transit Administration
GWP	Global Warming Potential
HCP	Habitat Conservation Plan
IS/MND	Initial Study/Mitigated Negative Declaration
kHz	Kilohertz
L _{dn}	Day-night average sound level

LUFT	Leaking underground fuel tank
MBTA	Migratory Bird Treaty Act
MCE	Marin Clean Energy
MTCO ₂ e	metric tons of carbon dioxide equivalent
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIC	Northwest Information Center at Sonoma State University
NRHP	National Register of Historic Places
NPDES	National Pollutant Discharge Elimination System
OAOC	Odor Assessment and Odor Control Plan
OHW	Ordinary High Water
PM	Particulate Matter
PPV	Peak Particle Velocity
RCNM	Road Construction Noise Model
RCP	Reinforced Concrete Pipe
rms	Root Mean Square
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SFBAAB	San Francisco Bay Area Air Basin
SGMA	Sustainable Groundwater Management Act
SHPO	California State Historic Preservation Office
SMHM	Salt Marsh Harvest Mouse
SWPPP	Storm Water Pollution Prevention Plan
SWRF	Soscol Water Recycling Facility
SWRCB	State Water Resources Control Board
UBC	Uniform Building Code
USACE	US Army Corps of Engineers
USEPA	US Environmental Protection Agency
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
UWMP	Urban Water Management Plan
WSA	William Self Associates, Inc.

1. INTRODUCTION

1.1 Purpose of this Document

Napa Sanitation District (NapaSan or the District) has prepared this Initial Study Checklist / Mitigated Negative Declaration (IS/MND) to evaluate the potential environmental consequences associated with the proposed 66-inch Trunk Sewer Rehabilitation: Kaiser Road to Soscol Water Recycling Facility (SWRF) (CIP 19701) (the “proposed Project”). The proposed Project is required to undergo environmental review pursuant to the California Environmental Quality Act (CEQA). One of the primary objectives of CEQA is to disclose to the public and the District’s decision makers the potential environmental consequences of implementing the proposed Project. CEQA requires that the lead agency prepare an Initial Study to determine whether an Environmental Impact Report, Negative Declaration, or a Mitigated Negative Declaration is needed. NapaSan is the lead agency for this Project under CEQA. NapaSan has determined, based on the analysis contained in this IS, that an MND is the appropriate level of environmental documentation for the proposed Project.

1.2 Scope of this Document

This IS/MND has been prepared in accordance with CEQA (as amended) (Public Resources Code §§21000 et. seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, §§1500 et. seq.), as updated on December 28, 2018. CEQA Guidelines §15063 describes the requirements for an IS and §15070-15075 describe the process for the preparation of an MND. Where appropriate, this document makes reference to either the CEQA Statute or State CEQA Guidelines. This IS/MND contains all of the contents required by CEQA, which includes a Project description, a description of the environmental setting, potential environmental impacts, mitigation measures for any significant effects, consistency with plans and policies, and names of preparers.

This IS/MND evaluates the potential for environmental impacts to resource areas identified in Appendix G of the State CEQA Guidelines (as amended in December 2018). The environmental resource areas analyzed in this document include:

- 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

1.3 CEQA Process

In accordance with CEQA Guidelines §15073, this Draft IS/MND is being circulated for a 30-day public review period (March 25, 2020 through April 24, 2020) to local and State agencies, and to interested organizations and individuals who may wish to review and comment on the report. NapaSan has circulated the Draft IS/MND to the State Clearinghouse for distribution to State agencies. In addition, NapaSan has circulated a Notice of Intent to Adopt a Mitigated Negative Declaration to the Napa County Clerk, responsible agencies, and interested entities. A copy of the Draft IS/MND is available for review at: <http://www.napasana.com/206/News-Public-Notices>. It is available for review in hard copy at the NapaSan office and Napa County Public Library.

Written comments should be submitted to NapaSan by 5:00 PM on April 24, 2020 to:

Karl Ono, PE
Napa Sanitation District
1515 Soscol Ferry Road
Napa, CA 94558
kono@napasan.com

Following the 30-day public review period, NapaSan will evaluate written comments received, if any, on the Draft IS/MND and incorporate any substantial evidence that the proposed Project could have a significant impact on the environment into the Final IS/MND.

If there is no such substantial evidence, NapaSan's Board of Directors will consider adopting the Final IS/MND and Mitigation Monitoring and Reporting Program (MMRP) in compliance with CEQA, at a publicly-noticed meeting. NapaSan's Board of Directors meetings are held the first and third Wednesday of every month unless posted otherwise, and are held at the Soscol Water Recycling Facility Board Room, 1515 Soscol Ferry Road, Napa, CA 94558.

1.4 Impact Terminology

Anticipated environmental impacts are identified for each of the resource areas listed in *Section 3 Environmental Checklist Form*. The level of significance for each impact is described using the following CEQA terminology:

No Impact. No adverse environmental consequences have been identified for the resource or the consequences are negligible or undetectable.

Less than Significant Impact. Potential adverse environmental consequences have been identified. However, they are not adverse enough to meet the significance threshold criteria for that resource. No mitigation measures are required.

Less than Significant with Mitigation Incorporated. Adverse environmental consequences that have the potential to be significant but can be reduced to less than significant levels through the application of identified mitigation strategies that have not already been incorporated into the proposed Project.

Potentially Significant. Adverse environmental consequences that have the potential to be significant according to the threshold criteria identified for the resource, even after mitigation strategies are applied and/or an adverse effect that could be significant and for which no mitigation has been identified. If any potentially significant impacts are identified, an Environmental Impact Report (EIR) must be prepared to meet the requirements of CEQA.

2. PROJECT DESCRIPTION

2.1 Project Overview

The proposed Project would include rehabilitation of approximately 6,985-linear feet of 66-inch diameter trunk sewer pipeline in Napa County, California. As shown in **Figure 2-1**, the 6,985-foot section of pipe to be rehabilitated extends from manhole R70-012 in the north, along a private road approximately 1,000-feet west of the Kaiser Road and Syar Way intersection, to manhole Q73-001 in the south at the Soscol Water Recycling Facility (SWRF). The Project would also include rehabilitation/replacement of the manholes associated with the 66-inch sewer rehabilitation.

To conduct the sewer rehabilitation and manhole replacement work, installation of temporary sewer bypass pipelines would be necessary because flow in the existing trunk sewer cannot be diverted within the existing Napa Sanitation District (NapaSan) sewer system, and rehabilitation work cannot be conducted in live flow. The temporary bypass pipelines would be installed above-ground to minimize excavation and reduce the time required for installation and dismantling, except at roadway and driveway crossings and through intersections where the bypass pipelines would be buried.

As shown in **Figure 2-2**, the temporary sewer bypass pipelines would be placed along various paved and unpaved roads and trails east of the 66-inch diameter trunk sewer. There are several options for the temporary sewer bypass pipeline crossing of the railroad tracks and Bedford Slough; this Initial Study evaluates the potential environmental impact of all bypass alignment options that were considered for this Project. The preferred bypass alignment for crossing the Bedford Slough is Alternative 2 as shown in **Figure 2-2**.

As shown in **Figure 2-1** and **Figure 2-2**, the existing 66-inch trunk sewer alignment to be rehabilitated and the proposed bypass pipeline alignment options cross the former Napa Pipe manufacturing property, Bedford Slough and Soscol Creek, the Union Pacific/California Northern Railroad, and are located just east of the Napa River. The proposed Project segments, in relation to City and County jurisdictional boundaries and land use and zoning designations are presented in **Figure 2-3**. Overall, the total disturbance footprint for the Project with all alternative bypass alignments would be approximately 15-acres, which would include areas surrounding existing manholes where the trunk sewer lining would be launched and received, areas where the bypass pipelines and pumps would be placed, equipment staging areas, and existing roadways and trails that would be used to access the construction areas and bypass lines. The majority of the 66-inch trunk sewer rehabilitation project would occur on land designated for light industrial use or mixed use development.

Figure 2-1: Overview of 66-inch Trunk Sewer to be Rehabilitated

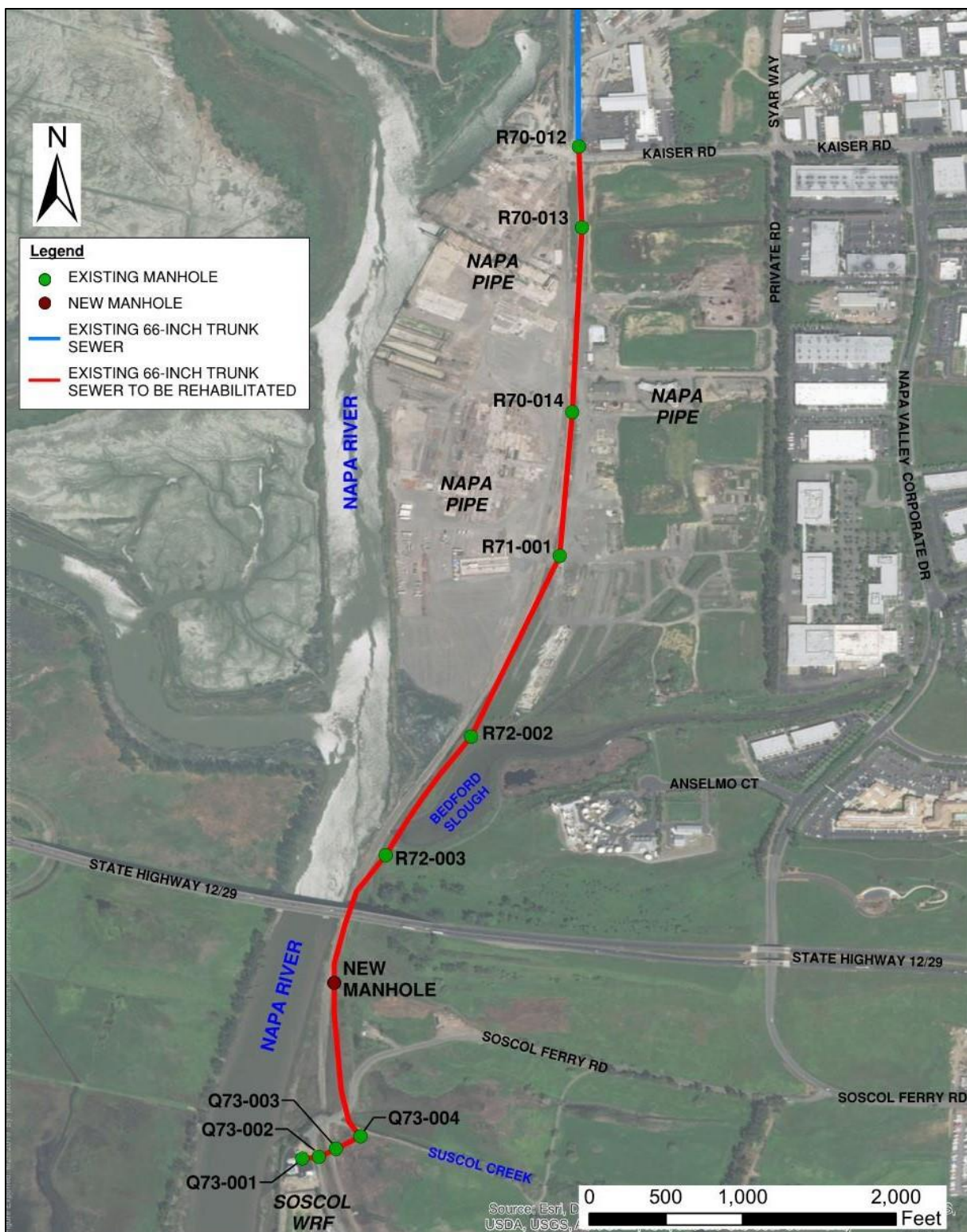


Figure 2-2: Proposed Rehabilitation and Bypass Discharge Alignments

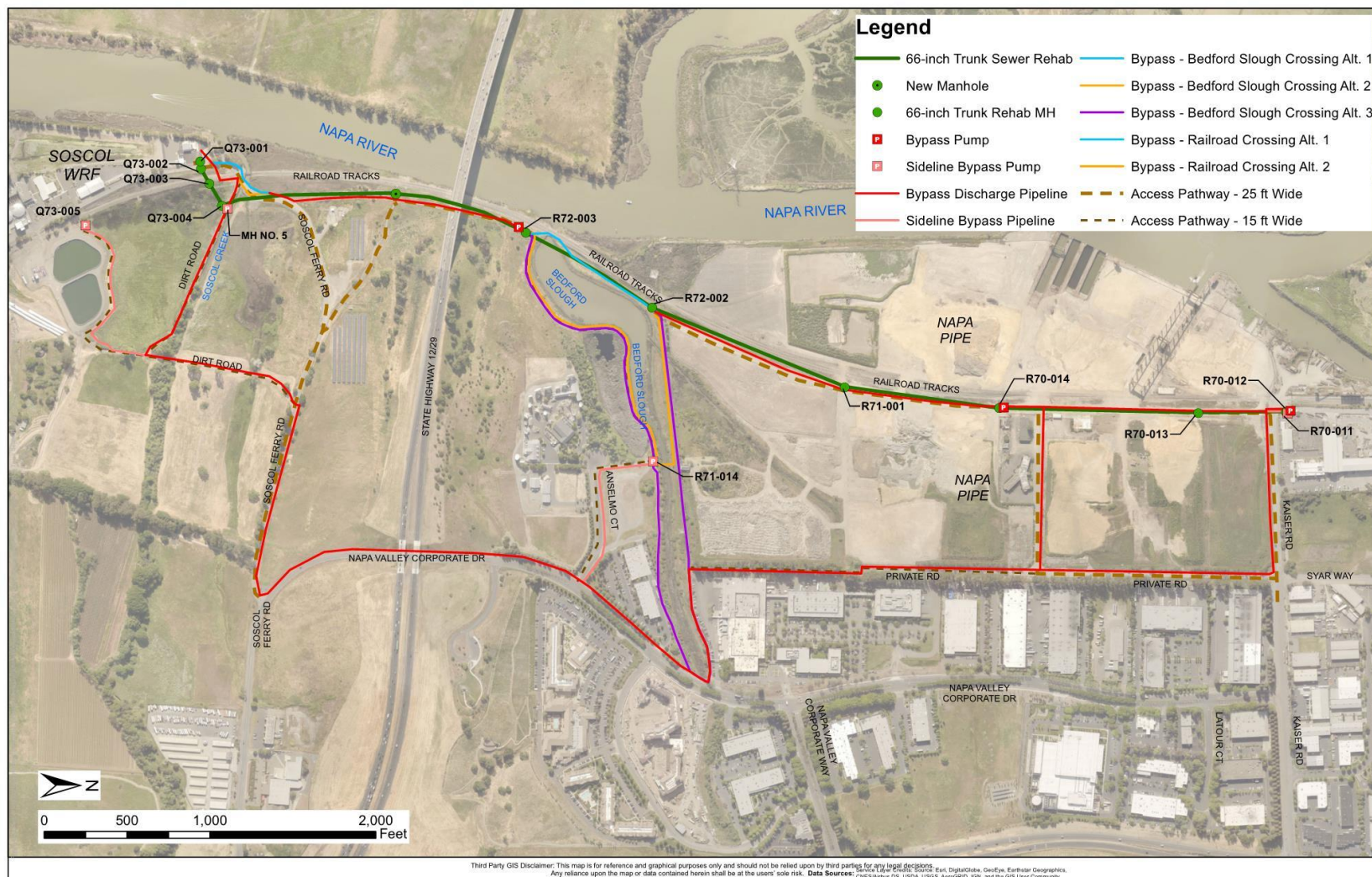
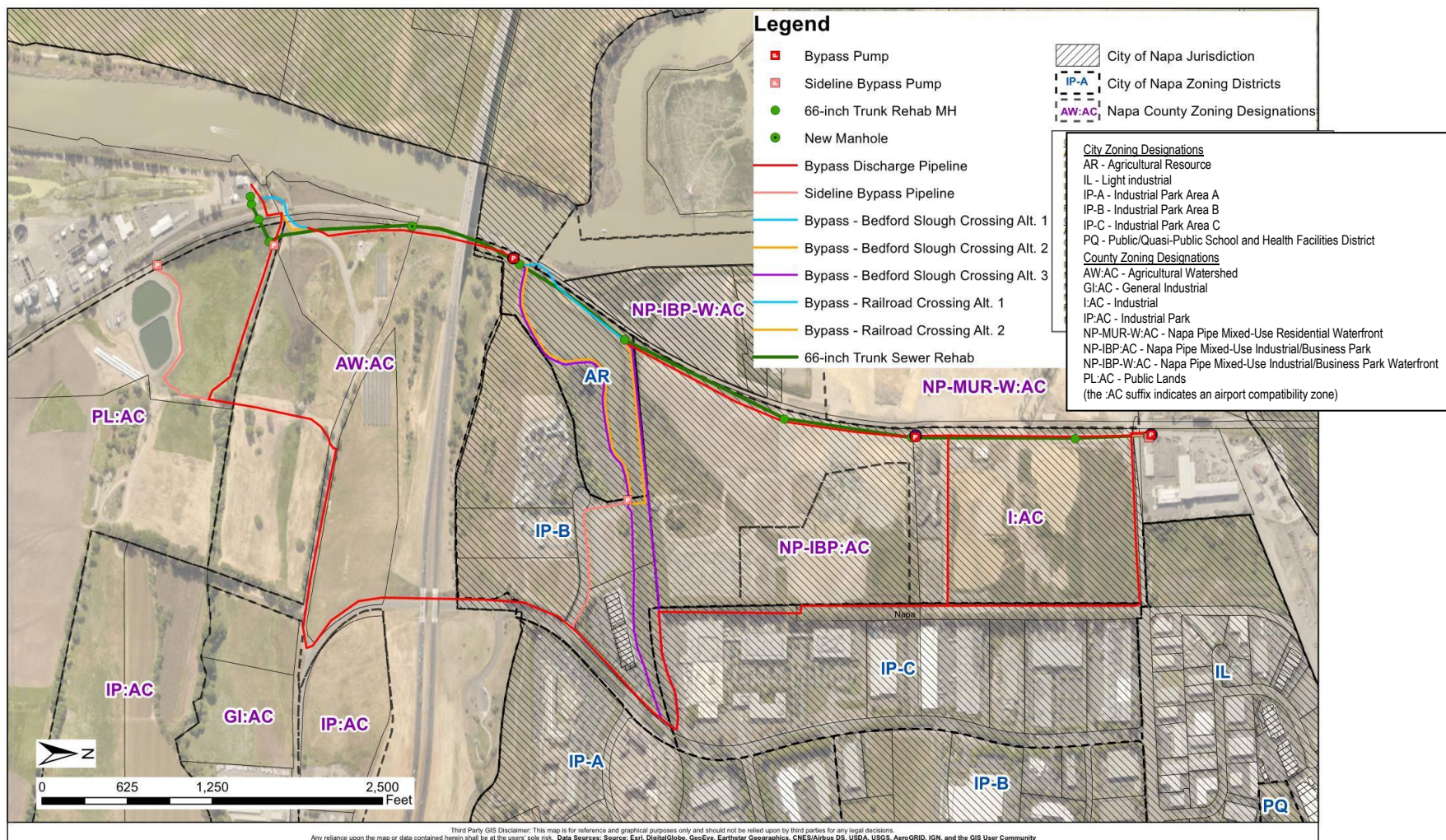


Figure 2-3: City and County Boundaries and Zoning Designations



Note: The City is in the process of annexing land on the former Napa Pipe property from the County. Jurisdiction boundaries may not be up-to-date with zoning designations.

2.1.1 Project Background

NapaSan owns and operates a 66-inch diameter trunk sewer which serves as its collection system backbone, conveying over 90 percent of the system's wastewater flow to the SWRF. The trunk sewer is approximately three miles long and is aligned along the east side of the Napa River, extending from Imola Avenue to the north and terminating at the SWRF to the south. The trunk sewer was constructed in the 1960s and consists entirely of reinforced concrete pipe (RCP) without an internal lining or external coating. For approximately the first 40-years of its service, the trunk sewer conveyed primary-treated effluent from a wastewater treatment plant located at Imola Avenue that was decommissioned in 2000 when SWRF improvements were constructed. At that time, the trunk sewer began conveying raw, untreated wastewater from NapaSan's collection system to the SWRF. This operational change exposed the unlined RCP structure to a more corrosive environment, common to sanitary sewer collection systems that convey untreated wastewater.

Routine inspections of the trunk sewer conducted in 2012 and again in 2017 revealed significant concrete deterioration had occurred on the inside of the pipeline during those five years. In response, NapaSan initiated a physical condition assessment evaluation in late 2017, which indicated that the RCP trunk sewer downstream of manhole R70-014 (approximately 5,400-feet) was structurally compromised and had exposed and corroded reinforcement. An additional condition assessment of the entire alignment was performed in early 2019. The results confirmed the RCP trunk sewer downstream of manhole R70-014 was structurally compromised due to exposed and corroded reinforcement. The 2019 condition assessment concluded with recommendations for near-term (Phase 1) and long-term (Phase 2) structural rehabilitation projects for the entirety of the 66-inch trunk sewer.

The 2019 condition assessment added the segment of pipe located between manholes R70-013 and R70-014 to Phase 1 because, though it was not structurally compromised, it was in poor enough condition that it warranted rehabilitation in the short-term. In addition, it is in a location on the former Napa Pipe property where it is more cost effective to add it to Phase 1 without additional disturbance and complications associated with bypass pumping.

The 533-foot RCP segment between manholes R70-012 and R70-013 was included as part of Phase 1 because of a proposed commercial development that is scheduled to be completed on and around the former Napa Pipe property before Phase 2 is started. Access to rehabilitate the existing pipe is anticipated to be easier before the commercial development has been completed without additional impacts.

2.1.2 Project Purpose and Need

The existing, 55-year-old RCP trunk sewer suffers from deterioration. The segments of pipeline contained in the Project are structurally compromised, have exposed and corroded reinforcement, or are in a condition that warrants rehabilitation. Currently, inflow and infiltration are entering the trunk sewer and manholes through defective pipe joints, pipe cracks, and defective manhole-to-pipe connections along portions of the alignment. This rehabilitation would add approximately 50-years of useful life to the trunk sewer that serves as the backbone of NapaSan's sanitary sewer collection system.

The objective of the proposed Project is to restore the structural integrity of the 66-inch trunk sewer by installing a fully structural liner within the structurally compromised segments identified under Phase 1, taking into consideration constructability/work area requirements, construction duration, hydraulic impacts, bypass requirements, regulatory/permitting requirements, and relative cost.

2.2 Environmental Setting

The proposed Project would cross the former Napa Pipe property, an industrial site that was once used as a steel plant. The owner of the 154-acre property has proposed a high-density residential neighborhood with open space,

neighborhood-serving retail, restaurants and a hotel on the western portion of the site (about 63-acres), and a Costco on the eastern portion of the site. In January 2013, the County certified the Final Environmental Impact Report for the Napa Pipe redevelopment project. In June 2013, the County approved the proposed General Plan Amendment and adopted a Zoning Ordinance and rezoned most of the project site to the newly adopted zoning district (County of Napa 2019). In August 2013, the applicant submitted the Draft Development Plan for review by various County and local agencies. Currently, the project is awaiting the annexation of 43-acres from County to City ownership. With the accelerated annexation, the soonest that development of the Napa Pipe property could break ground has been estimated at mid-2020 (Napa Valley Register 2019).

Some proposed bypass alignment options cross the Bedford Slough and Soscol Creek and are adjacent to the Napa River. The Napa River serves as habitat for steelhead trout and Chinook salmon. It is also important for both contact and noncontact water recreation. Excessive nutrients (nitrogen and phosphorus) have impaired habitat and recreational value of the Napa River system. As a result, the Napa River is on the U.S. EPA's 303(d) list of impaired water bodies due to nuisance algae growth caused by the excessive concentrations of nutrients. Bedford Slough, which is a tributary to the Napa River, is valuable for wildlife and estuarine habitat, as well as recreation. Soscol Creek, also a Napa River tributary, supports recreation, wildlife habitat, rare and endangered species habitat, and fish migratory and spawning habitat (San Francisco Bay Regional Water Quality Control Board 2018).

One section of the Union Pacific/California Northern Railroad, owned by Genesee & Wyoming, Inc., parallels the Napa River and the proposed Project alignment, and crosses Soscol Ferry Road at the entrance to the SWRF. The California Northern Railroad Company operates 256-miles of railways throughout northern California for the purposes of commodity transportation.

As shown in **Figure 2-3**, the land uses surrounding the proposed Project area include light industrial, industrial park, and the undeveloped Napa Pipe property. These zoning designations are intended for office and industrial uses and currently include businesses such as auto parts machine shops, wine making and supply stores, shipping centers, satellite communication services, and government services offices. There is one church located on Napa Valley Corporate Drive that holds services Saturday evenings and on Sundays (TFH 2019). The land zoned Agricultural Watershed contains the Napa Valley River Trail, Soscol Creek and potentially annual crops. The Napa Valley River Trail is 3.5-miles in length and is maintained by the City; it is part of a larger network of trails called the San Francisco Bay Trail.

2.3 Proposed Project Description

The proposed Project would include sewage bypass, rehabilitation of approximately 6,985-linear feet of 66-inch RCP trunk sewer, rehabilitation and replacement of existing manholes, and installation of one new manhole. The Project proposes to install a fully structural cured-in-place pipe (CIPP) liner or spiral wound liner within the structurally compromised segments of the trunk sewer pipeline identified under the near-term rehabilitation phase (Phase 1 of the 2019 condition assessment). This rehabilitation would add approximately 50-years of useful life to the trunk sewer.

As shown in **Figure 2-1**, the 6,985-foot section of pipe proposed to be rehabilitated extends from manhole R70-012 to the north, along a private road approximately 1,000-feet west of the Kaiser Road and Syar Way intersection, to manhole Q73-001 to the south at the SWRF.

All of the manholes shown in **Figure 2-1**, excluding manhole Q73-001, would either be rehabilitated or replaced (see Section 2.3.1.3, below). Manhole Q73-001 was constructed in 2016 as part of NapaSan's Influent Pump Station Expansion Project (C.I.P. 13724) for the purpose of connecting the original 66-inch RCP trunk sewer to a new 66-inch RCP segment that discharges into the SWRF headworks. The new 66-inch RCP segment that discharges into the SWRF headworks would not be rehabilitated or replaced as part of this Project. However, in order to rehabilitate the

Figure 2-5: Potential CIPP Liner Launch Work Area Layout at Manhole R70-013

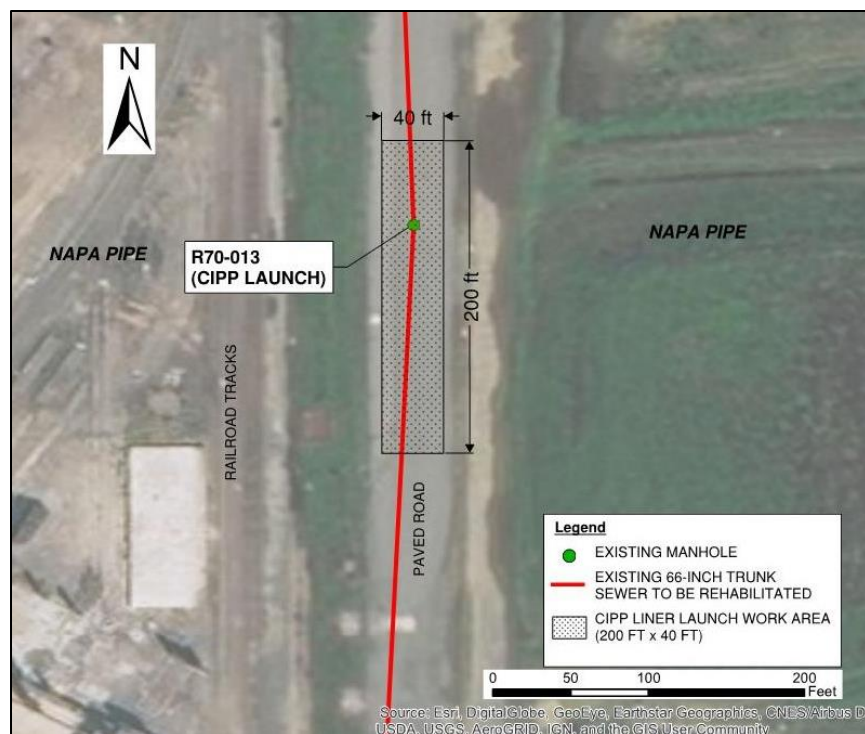


Figure 2-6: Potential CIPP Liner Launch Work Area Layout at Manhole R71-001

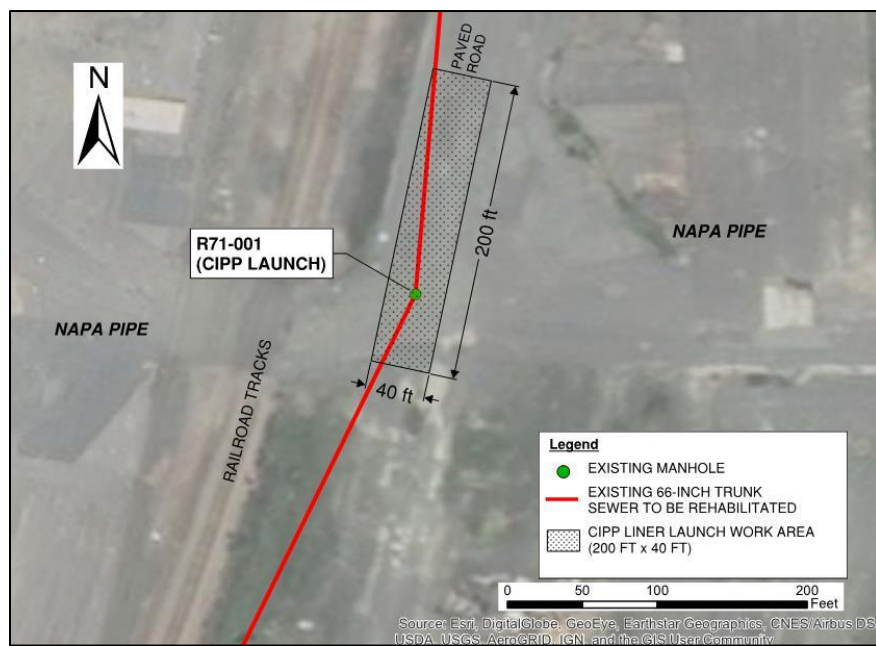


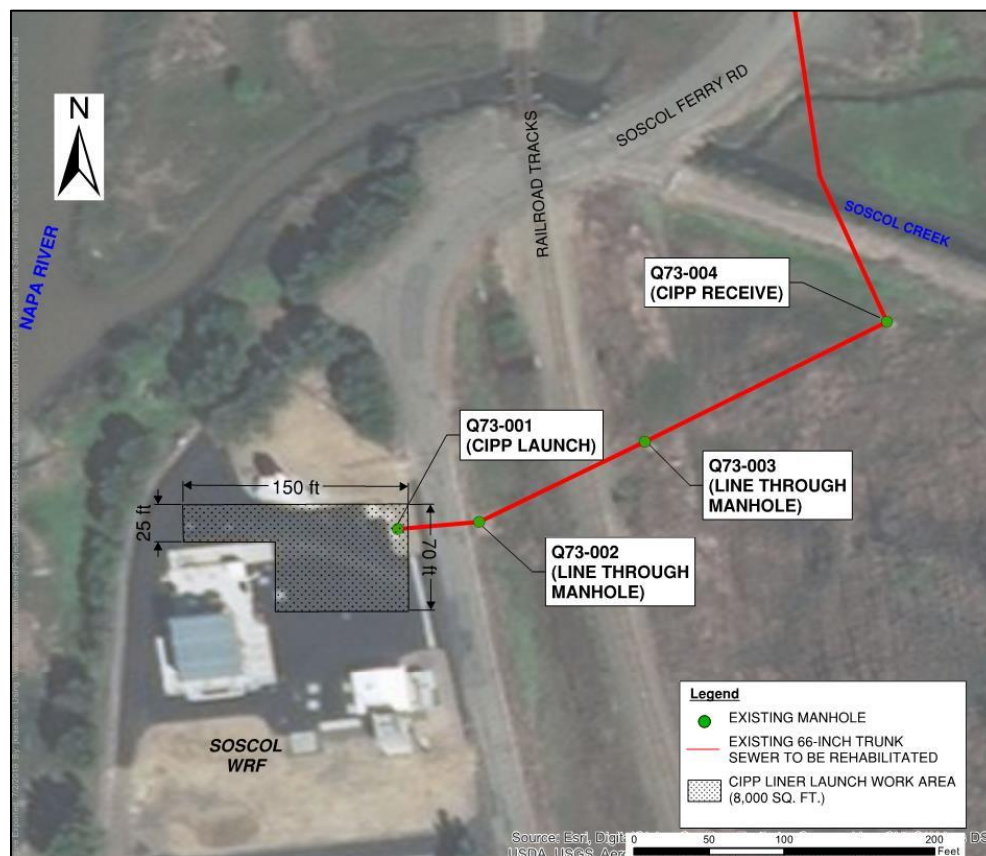
Figure 2-7: Potential CIPP Liner Launch Work Area Layout at Manhole R72-002



Figure 2-8: Potential CIPP Liner Launch Work Area Layout at the New Manhole



Figure 2-9: Potential CIPP Liner Launch Work Area Layout at Manhole Q73-001



2.3.1.1 Access Pathways

An approximately 15-foot wide access road would be required for activities involving pipeline cleaning, CCTV inspection, and terminating the CIPP liner at the receiving manholes. An approximately 25-foot wide road would be required for CIPP insertion at the launch manholes. The proposed access pathways would follow existing paved or dirt roads and trails; construction of new roads would not be required to gain access to each manhole. The existing 15-foot wide paved trail would be repaired and restored after completion of work at manhole R72-003 and the new manhole. The proposed 15-foot and 25-foot wide access pathways are shown in **Figure 2-2**.

2.3.1.2 Cure Water

CIPP is composed of a flexible, resin-impregnated synthetic fabric liner. Typically, once a CIPP liner has cured by filling it with water, the end of the CIPP liner is cut and the cure water is released into the sewer system. As the cure water makes its way downstream prior to reaching the treatment plant, volatile compounds (i.e., styrene) that are present in the resin have the time and atmospheric exposure to naturally degrade. The typical half-life of styrene is 7- to 16-hours. However, because of the proposed Project's proximity to the treatment plant, it is possible that there would be insufficient time for the styrene in the cure water to naturally degrade before reaching the treatment plant. In order to meet a maximum styrene concentration level, the cured water would be temporarily stored in an existing SWRF treatment pond, allowing the styrene to biodegrade prior to being introduced to the treatment system. This treatment pond is part of an oxidation pond system for water to be fed into the treatment stream at NapaSan's discretion.

The CIPP cure water would be released from the cured pipe into the 66-inch trunk sewer and flow toward the SWRF, but would be diverted to the treatment pond before reaching the SWRF. Once released into the treatment pond, NapaSan would determine when to introduce the cure water into the SWRF's treatment process.

2.3.1.3 Manhole Replacement and Rehabilitation

Prior to the start of CIPP lining, the existing manholes that the Contractor chooses to use for CIPP liner launch pits would be removed and the existing pipe would be cut to create a large enough opening (minimum 5-foot diameter) for insertion of the liner into the host 66-inch trunk sewer pipeline. The exception to this would be at manhole Q73-001, the sewer connection vault structure upstream of the SWRF headworks. Its 5-foot diameter barrel would be sufficient to insert the CIPP liner without modification. Only the cover, frame, concrete collar, and concentric cone would have to be temporarily removed at this location. According to record drawings, all other existing manholes included in the Project were constructed with 4-foot diameter barrels that sit directly on top of the pipe. This work would be sequenced in a manner that does not delay the CIPP lining work, given the time required to setup CIPP equipment, liner insertion, curing, and cool-down. The manholes that would not be used for CIPP liner insertion would be rehabilitated with a corrosion resistant coating. Manhole replacement would require excavation of an approximately 12-foot by 12-foot access pit, and an excavation depth of approximately 15- to 20-feet at each manhole to replace the manhole with a 60-inch diameter standard manhole. Due to close proximity to the Napa River, it is anticipated that groundwater would be encountered, and would be pumped for discharge into the sewer system.

Manhole rehabilitation would not require excavation. The contract documents would allow the Contractor to select which manholes would be used for CIPP liner launch and would exclude manholes Q73-004, Q73-003, and Q73-002 as options for CIPP liner launch; these three manholes would only be able to be used to receive the CIPP liner and for manhole rehabilitation work to avoid potential impacts to wetland vegetation.

2.3.1.4 Sanitary Sewer Bypass for CIPP

To complete the pipeline and manhole rehabilitation/replacement work for CIPP, sanitary sewer flow would be temporarily removed from the 66-inch trunk sewer between manholes R72-012 and Q73-001 with an above-ground bypass pumping system, consisting of pumps and pipes. A temporary bypass system would be necessary because flow in the existing trunk sewer cannot be diverted within the existing NapaSan sewer system, and the CIPP lining and manhole work could not be completed in live flow. The bypass pipelines would be buried at roadway and driveway crossings. Otherwise, the bypass pipelines would be installed above-ground to minimize excavation and reduce the time required for installation and dismantling.

The sanitary sewer flow would need to be bypassed upstream of manhole R70-012 to provide a dry environment in this manhole for CIPP liner insertion or termination, and to apply the coating in the interior manhole surfaces. It is common for the sewer bypass pumps to be installed at the manhole located immediately upstream of the manhole that cannot receive sewer flow. However, the manhole upstream of R70-012 is located approximately 1,500-feet to the north across Tulucay Creek. Due to this long distance and creek crossing, the Contractor would not be allowed to install the bypass pumps at this manhole. The Contractor would instead excavate down to the 66-inch trunk sewer within approximately 5- to 30-feet upstream of R70-012, remove the pipe crown, and place the bypass pump suction pipelines in the exposed pipe section. The environmental impacts of locating this bypass excavation pit in any location along the 66-inch trunk sewer within approximately 5- to 30-feet upstream of R70-012 are evaluated in this environmental document. No sewer flows would be allowed to discharge into the Project segments of the 66-inch trunk sewer during construction.

2.3.2 Spiral Wound Lining

Another option for pipeline rehabilitation is spiral wound lining. Spiral wound lining is the installation of a continuous strip of PVC or HDPE that is interlocked with the use of specialized winding machines into a circular shape within the existing sewer pipe. There is a resultant annular space behind the liner which would be filled with grout. This is a structural lining solution.

The spiral wound lining process consists of a specialized winding machine that rotates and traverses inside the existing pipe and lines the walls with a continuous strip of PVC profile. The PVC profile strip includes male and female locking edges that are treated with an adhesive (2-1). As the winding machine travels the pipeline, the locking edges are snapped together, locking the liner in place to form a circular shape. The PVC profile is fed through existing manholes or temporary access pits using an above ground spool. It can be installed through run lengths of approximately 750-feet and through bends up to 45 degrees. The following 66-inch RCP segments to be rehabilitated are longer than 750-feet and would require the construction of at least one temporary access pit along each segment to install the spiral wound liner:

- One temporary access pit required between R70-013 to R70-014 (approximate 1,190-foot RCP segment)
- One temporary access pit required between R70-014 to R71-001 (approximate 955-foot RCP segment)
- One temporary access pit required between R71-001 to R72-002 (approximate 1,264-foot RCP segment)
- One temporary access pit required between R72-002 to R72-003 (approximate 891-foot RCP segment)
- Two temporary access pits required between R72-003 to Q73-004 (approximate 1,856-foot RCP segment)

Construction of a 10-foot by 10-foot temporary access pit between these existing manholes would be sufficient to install the spiral wound liner in the five RCP segments that exceed 750-feet. The depth of the temporary access pits would not exceed 20-feet. The work area required at each of the access pits is approximately 15-feet by 20-feet (300-square feet). Once the liner is installed, each access pit would be backfilled and restored to previous condition or better. The temporary access pits described above would only be required for spiral wound lining.

Typical rates for installing spiral wound lining in pipelines of this size is up to 300-feet per day. A single, continuous run between access points likely cannot be completed in a single day. If the entire alignment were to be rehabilitated with spiral wound lining, the installation would take approximately 12 weeks.

Prior to liner installation, the existing RCP trunk sewer pipeline would be cleaned (i.e., dewatered and accumulated sediment removed; see discussion in Section 2.3.3). During installation, the spiral wound liner would be installed during live flows, as long as the trunk sewer remains below 20 percent capacity. No sewer bypass system would be required for spiral wound lining.



Figure 2-10: Interlocking Edges of PVC Profile Strip for Sekisui SPR™ TF Spiral Wound Liner

2.3.2.1 Access Pathways

An approximately 15-foot wide access road would be required for activities involving pipeline cleaning, CCTV inspection, and installing the spiral wound liner at each of the access locations. The proposed access pathways would follow existing paved or dirt roads and trails; construction of new roads would not be required to gain access to each manhole. The existing 15-foot wide paved trail would be repaired and restored after completion of work at manhole R72-003. The proposed access pathways are within the same footprint as those shown in **Figure 2-2**.

2.3.2.2 Manhole Rehabilitation

Installation of spiral wound lining would not require modifications to existing manholes. As such, existing manholes would be rehabilitated with a corrosion resistant coating. Manhole rehabilitation would not require excavation. No new manholes or manhole replacement would be required for spiral wound lining process.

2.3.3 Sanitary Sewer Bypass Options for Rehabilitation

2.3.3.1 Bypass Piping Size Options

There are two likely options for the size and configuration of the bypass piping under CIPP, but the actual installed diameter would be chosen by the Contractor and would not exceed the width of disturbance of either of these options:

1. Three parallel 18-inch diameter high-density polyethylene (HDPE) pipes. This option was preliminarily estimated to be more cost-effective and represents the maximum disturbance width.
2. Two parallel 24-inch diameter HDPE pipes.

For both options, the parallel HDPE pipes would have fused joints to minimize leakage potential.

2.3.3.2 Bypass Piping Alignment Options

There are two options for location of the bypass pipeline alignment which are shown in red in **Figure 2-2**. These would include an alignment running parallel to the 66-inch trunk sewer and one running along public and private roads and easements. These bypass alignment options are described below. The environmental impacts of all bypass discharge piping alignment options are analyzed in this environmental document.

1. Temporary bypass discharge system running parallel to the trunk sewer. There are two primary obstacles to running the bypass pipeline along the existing trunk sewer alignment: the Bedford Slough crossing, and the

railroad crossing. The options for crossing Bedford Slough and the railroad are shown in Figure 2-2 and are as follows:

- a. Bedford Slough Crossing Alternative 1: Place the bypass pipeline within the railroad right-of-way over the inlet of the Bedford Slough culvert to the Napa River.
 - b. Bedford Slough Crossing Alternative 2: Install a temporary pipe bridge over Bedford Slough where the tributary significantly decreases in width.
 - c. Bedford Slough Crossing Alternative 3: Place the bypass pipeline adjacent to Bedford Slough and cross Bedford Slough at Napa Valley Corporate Drive.
 - d. Railroad Crossing Alternative 1: Place the bypass pipeline across the railroad tracks along the Soscol Ferry Road railroad crossing.
 - e. Railroad Crossing Alternative 2: Place the bypass pipeline through the culvert underneath the railroad.
2. Temporary bypass discharge system stays on private and public roadways and easements. Under this option, the discharge pipeline would be placed within NapaSan's permanent sewer and recycled water easements until it reached the Napa Valley Corporate Drive public right-of-way. From there, the pipeline would be placed along the side of Napa Valley Corporate Drive, Soscol Ferry Road, and a paved/dirt road within NapaSan property until it crossed the railroad via an existing culvert. This bypass alignment option would avoid the Bedford Slough crossing and would utilize the culvert option for the railroad crossing. While this alignment option avoids potential impacts associated with the Bedford Slough crossings, it presents several additional challenges. Increased pumping head over the vertical profile of this alignment would require larger pumps and increased pressures in the bypass piping. Because of the longer bypass piping length and location, this option would require more public disturbance, higher risk of spill, additional monitoring, excavations at driveway and roadway crossings, potential impacts to pedestrian/bicycle safety, and risk of damage associated with its exposure along a busy roadway when compared to a bypass alignment that would run parallel to the existing trunk sewer through an existing easement.

2.3.3.3 Sideline Bypass Systems

Four smaller sewer lines currently discharge sewer flows to the 66-inch trunk sewer. Therefore, sideline bypass systems (shown in **Figure 2-2**) would be required for each of these sewers to prevent live flow from entering the Project segment of the 66-inch trunk sewer during the sewer rehabilitation and manhole work. The four sideline bypass systems were identified at the following manholes. The bypass piping from these sideline bypass pumps would connect to the primary HDPE bypass pipelines.

1. Manhole R70-011 – located approximately 10-feet east of 66-inch trunk manhole R70-012 and has a 10-inch sewer outlet.
2. Manhole R71-014 – located along Bedford Slough approximately 900-feet east of 66-inch trunk manhole R72-002 and has a 12-inch sewer outlet.
3. Manhole Q73-005 – located approximately 750-feet south of 66-inch trunk manhole Q73-003 and has a 24-inch sewer outlet.
4. Manhole No. 5 – located along an existing dirt/gravel access road approximately 40-feet northeast of the 66-inch trunk sewer manhole Q73-004 and has an 8-inch sewer outlet. It should be noted that this manhole has

not been constructed as of October 2019, but would be constructed prior to the start of construction for the 66-inch Trunk Sewer Rehabilitation Project.

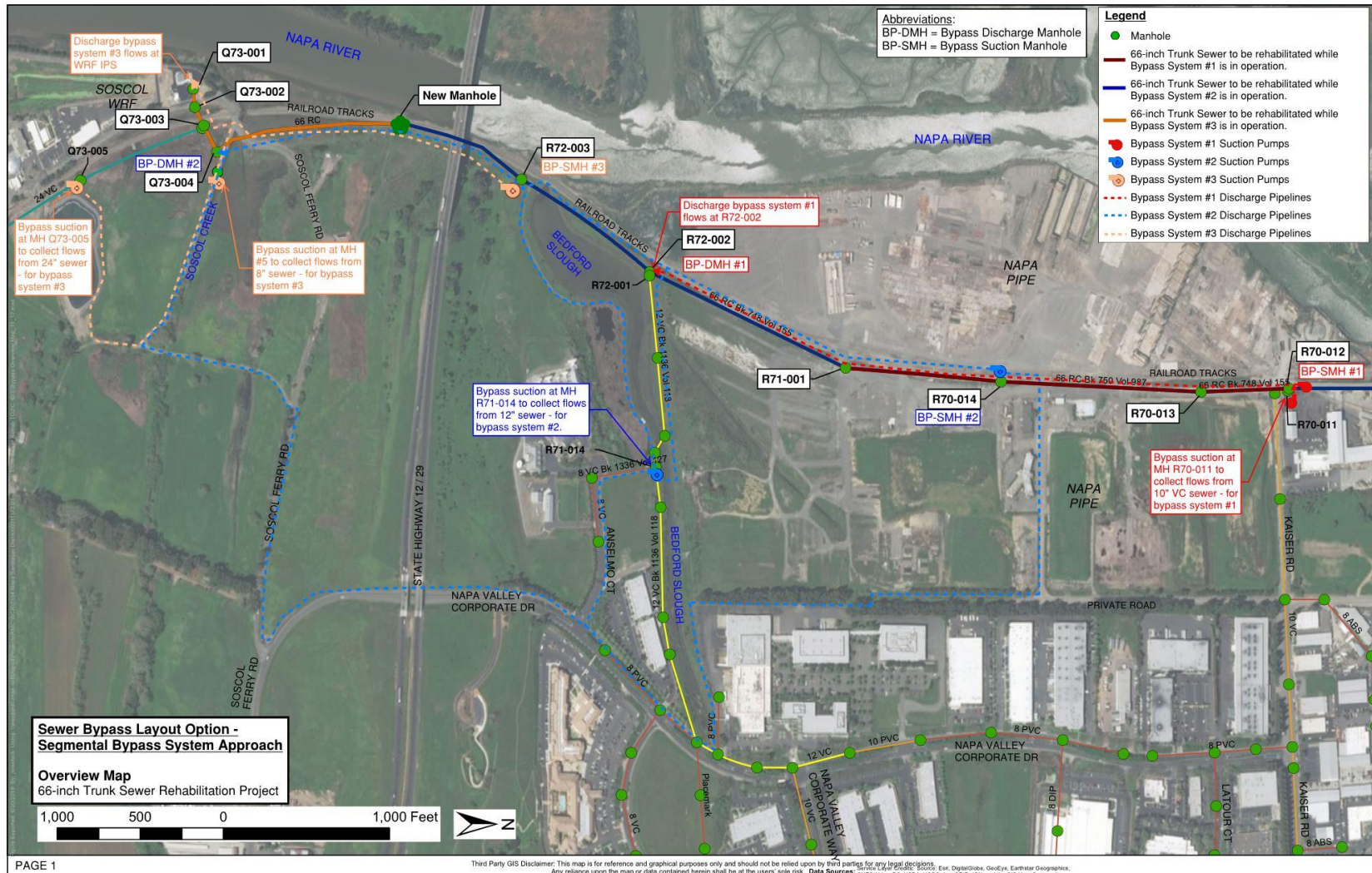
2.3.3.4 Bypass Pipeline Construction Sequencing/Set-Up Options

The trunk sewer repair and rehabilitation could be installed one reach of pipe at a time; a segment could be rehabilitated and become operational before installation begins at the next segment. This construction sequencing allows for two options with the bypass system setup:

1. The Contractor may install a single-run bypass system that spans the entire Project length and operates until Project completion. This would require only one bypass system assembly and disassembly period.
2. Alternatively, the Contractor may move the bypass system in accordance with the trunk sewer repair sequence, thereby only bypassing flows from the section of trunk sewer in which work is actively being conducted. This latter option reduces the total length of an operational bypass system by approximately 3,000 feet, but could increase the total cost of bypass because of the additional labor associated with assembly/disassembly of the bypass system. Based on the possible CIPP insertion locations, and the primary bypass pipe alignment, the bypass system could only be feasibly split into three parts. The first bypass system would divert flow immediately upstream of manhole R70-012 and discharge into manhole R72-002 while the trunk sewer is rehabilitated between manholes R70-012 to R71-001. After these segments have been lined and become operational, the bypass system would be disassembled and reassembled at manhole R70-014. The second bypass system would discharge into manhole Q73-004 while the trunk sewer is rehabilitated between manholes R71-001 and the new manhole located between existing manholes R72-003 and Q73-004. After these segments have been lined and become operational, the bypass system would then be disassembled and reassembled for a final time at manhole R72-003. The third bypass system would suction sewer flows out of R72-003 and discharge into the SWRF headworks facility during trunk sewer rehabilitation from the new manhole to Q73-001. **Figure 2-11** shows the layout for the segmental bypass system option.

Regardless of which bypass system setup the Contractor chooses, the bypass would begin at the suction pit upstream of manhole R70-012, and, as discussed in Section 2.3.3.2, the bypass pipeline would either be placed parallel to the 66-inch trunk sewer alignment and cross Bedford Slough and the railroad using one of the alignment crossing options or it would be placed along existing roadways/easements.

Figure 2-11: Segmental Bypass System Layout Option



2.3.4 Sediment Removal and Disposal

There are approximately 158-cubic yards of sediment accumulated along the bottom of the trunk sewer between manholes R70-012 and Q73-001. The accumulated sediment would be collected during the pre-lining pipeline cleaning process and disposed of by the Contractor. NapaSan would complete chemical composition testing on sediment samples prior to the start of construction to determine the hazardous waste classification and potential disposal options. This information would be provided in the contract documents to inform decisions regarding transportation and sediment disposal. If hazardous, the sediment would likely be disposed of at the Class II landfill in the Kettleman Hills.

2.4 Construction Activities / Methods

Construction would occur in three primary phases: 1) installation of the bypass system; 2) cleaning the 66-inch trunk sewer and CIPP lining and/or spiral wound lining; and 3) disassembly of the bypass system and site restoration.

2.4.1 Construction of the Bypass Pipeline and Pump System

The bypass pipeline and bypass pumps would be installed above-grade, except at the following location where the pipeline crosses a driveway or roadway:

- Soscol Ferry Road near a private gated driveway entrance.

Additional excavation would be required for Bypass Pipeline Alignment Option 2 (Section 2.3.3.2) at the following locations:

- Driveway entrance into a commercial lot at 2771 Napa Valley Corporate Drive; and
- Intersection of Napa Valley Corporate Drive and Anselmo Court.

Excavation at each of the crossings would be approximately 5-feet in depth, 40-feet in length, and 6-feet in width for a total excavated material quantity of 134-cubic yards and a total disturbance footprint of 720-square feet. Excavated material would be reserved onsite, tarped, and used for backfill during site restoration such that no material would need to be hauled away.

The temporary, above-grade bypass pumps would have the following approximate disturbance footprints:

- 2,800-square feet for the bypass pumps at manhole R70-012;
- 2,800-square feet for the bypass pumps at manhole R70-014;
- 2,800-square feet for the bypass pumps at manhole R72-003;
- 550-square feet for the sideline bypass pump at manhole Q73-005;
- 240-square feet for the sideline bypass pump at manhole R71-014;
- 230-square feet for the sideline bypass pump at manhole R70-011; and
- 180-square feet for the sideline bypass pump at manhole No. 5 near the intersection of Soscol Ferry Road and the railroad tracks.

Including the extra area required for suction piping and discharge manifold, the maximum total area of disturbance for the pumps would be approximately 9,600-square feet.

The temporary bypass pump disturbance areas would be comprised of multiple above-ground pumps located in proximity to the existing manholes, with piping and valves connecting each pump to form a cohesive pumping system

(see photos in *Section 2.4.6 Construction Best Management Practices*). The bypass pumping area at manhole R70-012 would include a temporary excavation pit (approximately 10-feet by 10-feet) located upstream of the manhole, but the other pump locations would not require excavation and the suction piping would enter the manhole by removing the manhole cover. All bypass equipment would be removed at the end of the work that require a dry environment (e.g., CCTV, CIPP, and manhole rehabilitation and replacement). The bypass system would run around the clock during the dry season for the full duration of construction (May 15 through October 15), and would be shut down when the CIPP and manhole work requiring a dry environment is completed. The bypass system would be monitored 24/7 by a dedicated “pump-watch” crew to ensure they are working properly with no leaks or spills. A pick-up truck or similar vehicle would be parked in the bypass pumping area each day for the “pump-watch” crew, who would likely conduct monitoring in either three 8-hour shifts or two 12-hour shifts. Measures to control noise, odors, and spills at the bypass pumps are explained in *Section 2.4.6 Construction Best Management Practices*.

The temporary bypass pipelines themselves would have a disturbance width of one to six feet for the duration of Project construction. The maximum area of disturbance for the bypass pipelines would be up to approximately 92,000 square feet (which includes all pipeline alignments and crossing options representing a maximum disturbance area). This assumes a disturbance width of six-feet across the primary bypass pipeline alignments and a disturbance width of one-foot across the sideline bypass pipeline alignments.

The Contractor would inspect the bypass pipelines at least twice per day while they are in operation to check for leaks. Where the bypass pipelines are located along existing roads or trails, it is assumed the Contractor would access the pipelines in vehicles. Where the bypass pipelines are located outside of existing roadways and trails (e.g., Bypass – Bedford Slough Crossing Alt. 3 in **Figure 2-2**), the Contractor would access them on foot to the extent possible; however vehicle access into these areas would already have been required during bypass installation, and therefore could be accessed by vehicles if needed for inspections.

2.4.2 Cleaning and Rehabilitation of 66-inch Sewer

Cleaning the existing trunk sewer would involve bypassing sewer flows and removing accumulated sediment prior to construction. Pumped flows would be discharged into the SWRF, downstream of the segment of trunk sewer being rehabilitated. No permit is required for the discharge. This phase of construction would include cleaning approximately 158 cubic yards of accumulated sediment out of the bottom of the trunk sewer and hauling the sediment away for proper disposal as discussed in Section 2.3.3. Both CIPP and spiral wound lining would require cleaning of the pipeline prior to rehabilitation.

As explained in Section 2.3.1, CIPP liner installation would take approximately one and one-half weeks per pipe segment for wet-out, liner insertion, curing, cool-down, sealing the liner at each manhole, and pre- and post-lining CCTV inspections. With eight proposed pipe segments, total CIPP liner installation time is estimated to be 12 weeks. The work area at the CIPP liner launch manholes would be approximately 200-feet by 40-feet (8,000-square feet) and the work area at CIPP liner receiving manholes is expected to be approximately 20-feet by 30-feet. Manhole rehabilitation and replacement would be incorporated into the CIPP lining schedule. Manhole replacement and new manhole installation work would require excavation of approximately 12-foot by 12-foot access pits, approximately 15-20 feet deep, at each manhole. Manhole rehabilitation work would not require excavation. The maximum total volume of disposed excavated material associated with the CIPP liner and manhole work phase is estimated to be approximately 674 cubic yards. The total disturbance footprint is estimated to be approximately 73,200 square feet.

As explained in Section 2.3.2, spiral wound liner installation would take approximately 1- to 3- days per pipe segment between access points, depending on the length of each run. With up to 16 pipe segments and including time to dig and backfill the access pits and grout the annular space, total spiral wound liner installation time is estimated to be 16 weeks. The work area at each end of the spiral wound liner installation would be 15-feet by 20-feet (300-square feet). Manhole rehabilitation would be incorporated into the spiral wound lining schedule. Manhole rehabilitation would not

require excavation, and the work area could be set up in the same area as the lining equipment. The maximum total volume of disposed excavated material associated with the spiral wound liner and manhole work phase would be negligible since no excavated material is expected to be off-hauled. The total disturbance footprint is estimated to be 400-square feet at each access point. Including work at manholes, the total footprint of disturbance would be 5,300 square feet.

2.4.3 Disassembly and Site Restoration

The final construction phase would include disassembly and removal of the bypass pipeline and bypass pumps. It would also include site restoration in which the roadway and driveway crossings affected by construction would be restored to original condition. The existing 15-foot wide paved trail would be repaved and restored as necessary to return it to pre-construction conditions. Additionally, vegetated areas that are not avoided or protected during construction would be restored to their pre-project condition or to a more natural condition (e.g. non-native grasslands will be seeded with a native seed mix if disturbance requires seeding to repair habitat).

2.4.4 Construction Schedule

The Project would be constructed during the dry season (May 15 through October 15) to minimize bypass pumping requirements. Work would proceed through November (for a total of seven months) to accommodate bypass disassembly, clean up and site restoration. Each of the three primary construction phases would occur during discrete time frames and would not overlap in schedule.

Duration of the bypass installation would be dependent on the bypass set up that is selected. The bypass system would only be in operation from May through mid-October, the dry season.

Cleaning the 66-inch trunk sewer prior to lining could last approximately 10 weeks in total. Construction durations for spiral wound lining would be less than CIPP. As such, this document studies the longest-anticipated construction duration. If CIPP is selected, the CIPP liner installation phase could last approximately one and one-half weeks per pipe segment, or estimated 12 weeks in total. This would include liner wet-out, insertion, curing, cool-down, sealing the liner terminations at each manhole, and pre- and post-lining CCTV inspections. The manhole replacement and rehabilitation work would partially occur concurrently with CIPP lining, but is estimated to last up to four weeks after CIPP lining has been completed. The final construction phase would involve disassembly and removal of the bypass pipeline and pumps, and could take approximately two weeks. Restoration of roadway and driveway crossings and trails could take approximately two weeks.

Lining operations are anticipated to occur during daytime hours. The primary bypass and sideline bypass systems would require around the clock operation.

2.4.5 Equipment / Staging / Trips

Equipment required for the CIPP or spiral wound liner installation may include: trucks, excavators, backhoes, front-end loaders, dump trucks, diesel generators, tanker trucks, trailers, compactors, concrete trucks, combination vactor/jetter trucks, skid-mounted suction-lift diesel and electric pumps. The temporary bypass system would involve primary and standby pumps, piping, and valving. Installation of the bypass pipeline at roadway and driveway crossings would require an excavator or backhoe and dump truck.

To characterize and analyze potential construction impacts, maximum crew size, truck trips, and worker trips have been estimated based on expected excavation volumes and quantities of imported materials. The main pieces of equipment that may be used at any given time during construction are summarized in **Table 2-1**.

Table 2-1: Construction Equipment

Phase	Equipment
Bypass pipeline and pump installation	Truck-mounted crane (1), flat-bed delivery trucks (4), excavator (1), backhoe (1), grader (1), scraper (1), compactor (1), HDPE pipe fusion machine (2), diesel generators (2), skid-mounted diesel pumps (12), and skid-mounted electric pumps (4).
Trunk sewer cleaning, CCTV inspection, CIPP lining, and manhole construction	Combination vactor/jetter trucks (2), end dump truck (1), CCTV van (1), CIPP resin tanker truck (1), trailer with CIPP felt liner (1), pumping system to inject CIPP resin into the felt liner (1), boiler (1), diesel generators (2), water tanker truck (1), compressor (1), truck-mounted crane (1), flat-bed delivery trucks (4), excavator (1), backhoe (1), grader (1), scraper (1), compactor (1), end dump truck (1), forklift (1), concrete truck (1).
Spiral wound lining	Truck and trailer with lining material on one 87-inch high by 48-inch wide spool
Bypass system disassembly and roadway restoration	Truck-mounted crane (1), flat-bed delivery trucks (4), bottom dump truck (1), grader (1), scraper (1), compactor (1), and paver and roller (1).
Note: When operational, the bypass system would operate 24 hours per day. The quantity of pumps listed here include standby pumps (100 percent redundancy required); the actual number that would be in operation is half of what is listed in this table.	

Project construction would require an average crew size of 10 people, including inspectors. Assuming a truck capacity of 16 cubic yards (cy), the proposed Project construction would result in up to approximately 60 hauling truck trips for CIPP liner and up to approximately 35 hauling truck trips for spiral wound liner over the seven-month construction duration

Staging areas would be located within NapaSan's permanent sewer easement between manholes R70-013 and R70-014 and in NapaSan-owned parcels, such as the SWRF. An additional staging area could be necessary (outside of NapaSan's permanent sewer easement) located within the Napa Pipe property, along the existing developed, paved area, just south of Kaiser Road. Staging would involve storage of CIPP or spiral wound lining materials, bypass pipes and equipment, and miscellaneous other materials. The Contractor would use existing roadways and trails for access pathways to the 66-inch trunk sewer and the bypass pumps/pipelines. The total access pathway footprint is 456,000 square feet, located entirely along existing paved roadways, dirt roadways, and paved trails. The bypass pipeline segments located outside of existing roadways and trails (e.g., Bypass – Bedford Slough Crossing Alt. 3 in **Figure 2-2**) would be accessed by the Contractor on-foot (i.e., no vehicular access).

2.4.6 Construction Best Management Practices

The contract documents would include Napa County and City of Napa standard construction best management practices including, but not limited to:

- Prepare and implement a temporary Traffic Control Plan;
- Obtain coverage under the SWRCB Construction General Permit (project exceeds 1 acre of disturbance) and implement a Storm Water Pollution Prevention Plan (SWPPP); and
- Identify existing underground utilities through Underground Service Alert.

For the temporary sanitary sewer bypass system, the contract documents would include a requirement for the Contractor to develop and submit for Engineer's acceptance a Spill Prevention Control and Countermeasure Plan (SPCCP) and an Odor Assessment and Odor Control Plan (OAOCP). The minimum requirements for each are as described below:

1. SPCCP shall include, as a minimum, the following items:
 - a. Identify equipment, materials and labor necessary to prevent a sewage spill.
 - b. Bypass system protective measures that prevent potential damage to the system from outside forces (cars, etc.), and/or to prevent material failure – considerations for mitigation shall include options for barriers or barricades to protect the system, and new piping/coupling materials to protect from material failures.
 - c. A description of the Contractor's Plan to respond to a sewage spill should it occur.
 - d. Identify during which events and where the equipment, materials and labor will be used.

The requirement for the Contractor to provide equipment, materials, and labor to prevent and contain a spill would be included in the bypass system specification in the contract documents. Common spill and leak prevention and containment measures for bypass systems include: a secondary containment catch basin integral to the pump skid, plastic sheeting and sandbags placed around the pumps, sandbags placed around nearby storm drain catch basins, and pressure-testing of pumps and pipes with potable water to check for leaks prior to using the system for sewer bypass.

2. OAOCP shall include, as a minimum, the following items:
 - a. Identifying and locating on a drawing the potential construction activities that might produce odors.
 - b. Describe the means of mitigating the odors and identifying materials, equipment, and systems the Contractor plans to use.
 - c. For each of these construction activities, the Contractor shall include the scheduled construction date(s), expected construction duration(s), a listing of the potential receptors, and the distance to these receptors.

For the bypass pumps, the contract documents would include a maximum sound level that the pumps must not exceed in order to comply with local noise ordinances. The Contractor would provide the appropriate noise attenuation measures to apply to the pumps, as necessary, to achieve sound levels within local standards. For example, the pumps may be placed in sound attenuation boxes, as shown in the following picture:



Pumping system with noise attenuation boxes



Pumping system without noise attenuation boxes

The Project is being undertaken by a public agency and is necessary to provide the public with sanitation services; therefore, it would be exempt from City noise regulations. Nonetheless, during construction, the Contractor would implement basic noise control regulations, in accordance with City of Napa Municipal Code Section 8.08.025.E:

- A. Muffler systems on construction equipment shall be properly maintained.
- B. Construction equipment shall not be placed adjacent to developed areas unless said equipment is provided with acoustical shielding.
- C. Construction and grading equipment shall be shut down when not actively in use.

2.5 Operation and Maintenance

Once the liner is installed and construction is complete, there would be no change to the operations and maintenance of the trunk sewer.

2.6 Right-of-Way / Permits / Approvals

It is assumed that NapaSan has a minimum 40-foot wide permanent easement along the entire 66-inch trunk sewer alignment. Property access for the sewer bypass system, if any, would be coordinated by NapaSan prior to and during construction. Manholes along the trunk sewer alignment appear to be accessible to equipment without having to procure temporary construction easements. Work along the trunk sewer will require temporary construction easements, and would be identified and obtained by the NapaSan prior to commencing construction.

Caltrans. A revocable Encroachment Permit is required for encroachments onto State of California Caltrans right-of-way. The proposed Project may encroach upon Caltrans right-of-way in two locations: (1) where the existing trunk sewer crosses under Highway 12/29; and (2) where the bypass alignment may cross under Highway 12/29 on Napa Valley Corporate Drive. Each of these Caltrans right-of-way crossings would pass beneath elevated structures and no excavation would occur within Caltrans right-of-way. So, it is anticipated that a notification to Caltrans of the trunk sewer rehabilitation as a means of system maintenance would be sufficient and that an Encroachment Permit would not be required.

Napa County. If the bypass system layout along Napa Valley Corporate Drive is selected, it would require both Napa County and City of Napa Encroachment Permits. Napa County Encroachment Permits are issued by the Public Works Department/Roads Division. When an Encroachment Permit is approved, conditions associated with the Project may be attached to the permit. These conditions of approval would be included in the contract documents. The contract

documents would also require the Contractor to obtain the Encroachment Permit and to comply with the permit conditions.

City of Napa. A City of Napa Encroachment Permit would be required if the Project work would occur in a City of Napa roadway. Although the existing pipe is located within NapaSan easements on private property, encroachment of the bypass pipeline onto Napa Valley Corporate Drive would require a City Encroachment Permit if that bypass alignment were selected. Temporary layout of bypass piping along the shoulder of the road would need to be approved by the City. City-required measures during construction would be included in the contract documents as necessary. If it is deemed necessary for the Project, a City Encroachment Permit would be obtained prior to construction.

Napa County Regional Park & Open Space District. In order to rehabilitate the existing trunk sewer with CIPP, a new manhole would be installed between manhole R72-003 and Q73-004. This new manhole would be accessed by the Napa River Trail from Soscol Ferry Road. In addition, the Contractor would need to access and use the Napa River Trail as ingress and egress for either of the lining options. The Napa County Regional Park & Open Space District is the steward of this segment of trail. Based on available information from the San Francisco Bay Trail's website, the section of the trail near Soscol Ferry Road "exist[s] via a combination of riverside multi-use paths and bike lanes." This section of trail is paved and is approximately 15-feet wide. Notification to the Open Space District regarding the planned work and potential trail shut-down during construction may be necessary prior to the start of construction. Specific restoration requirements provided by the Open Space District would be included in the contract documents.

Private Property. Private property access would be required to complete the sewer rehabilitation, including access for temporary placement of the bypass pipeline. **Table 2-2** identifies the parcels directly affected by construction. Several temporary construction easements may be needed for the bypass pipeline.

Table 2-2: Private Property Access

APN	Work Description	Existing Easement?
046-370-003	Bypass suction and pipeline	Yes
046-630-007	CIPP launch; bypass pipeline and discharge	Yes, but would need access through Napa Pipe Temporary Construction Easement
046-400-015	CIPP launch; new manhole; bypass pipeline	Yes, but bypass pipe is outside of easement. Would need access through Open Space District Temporary Construction Easement.
046-610-021	Bypass pipeline	Yes, but would need Temporary Construction Easement for bypass pipe.
046-400-016	Bypass pipeline	NapaSan property
057-010-038	Bypass pipeline	NapaSan property (SWRF site)
046-400-054	Bypass pipeline	Yes, but would need Temporary Construction Easement for bypass pipe.
046-400-055	Bypass pipeline	Yes

Napa Pipe. Parcels 046-400-054 and 046-400-055 are on the former Napa Pipe property. The owner of the property has proposed a high-density residential neighborhood with open space, neighborhood-serving retail, restaurants, a hotel, and a Costco. Access to the former Napa Pipe property would be provided via Basalt Road and Kaiser Road. From there, the Contractor would be able to utilize NapaSan's existing permanent easement to complete the rehabilitation work from manhole R70-012 to R72-002.

Utility Coordination. Excavation would be required at each existing manhole that would be used for CIPP launch, the new manhole located between R72-003 and Q73-004, the bypass suction location immediately upstream of manhole R70-012, and where the bypass pipeline crosses driveways and roadways. Excavation would also be required for each

of the intermittent spiral wound lining access pits. The contract documents would require the Contractor to identify existing utilities at these locations prior to excavating.

An Underground Service Alert design ticket would be submitted at the start of the final design phase to generate a list of agencies with utility infrastructure within the proposed Project area. Each agency listed in the design ticket report would be contacted with a Utility “A” Letter. This initial contact letter would include a brief introduction to the Project and a request for record drawings and other existing facility/infrastructure information available for the Project area. Utilities that are identified to have infrastructure within or adjacent to the planned excavations will be sent follow-up Utility “B” Letters during the design process to confirm that the design avoids impacts to their facilities. Additionally, NapaSan has provided record drawings for the existing sewer and recycled water infrastructure. Utility conflicts are expected to be minor considering the trunk sewer alignment is located within an unpopulated and relatively undeveloped area. The potential utility conflicts are expected to be at manhole R70-012 due to the adjacent steel manufacturing shop, near the manholes and access pits located within the former Napa Pipe property (R70-013, R70-014, and R71-001), and along Napa Valley Corporate Drive.

US Army Corps of Engineers (USACE). Discharge of fill material into waters of the United States, including wetlands, is regulated by the United States Army Corps of Engineers (USACE) under Section 404 of the federal Clean Water Act (33 USC 1251-1376).

The placement of structures in “navigable waters of the U.S.” is also regulated by USACE under Section 10 of the federal Rivers and Harbors Act (33 USC 401 et seq.). Projects are permitted under either individual or general (e.g., nationwide) permits. The specific applicability of the permit type is determined by USACE on a case-by-case basis.

The Section 404 permit process also triggers consultations with other agencies – the U.S. Fish and Wildlife Service and National Marine Fisheries Service – but these consultations are conducted by USACE with technical information provided by the design team.

A wetlands delineation report has been prepared for the Project by WRA (2019) that identifies jurisdictional waters and wetlands of the United States that could be impacted by the Project. Construction techniques that avoid placement of fill within waters of the United States would not require a 404 Permit. The bypass pipeline, launch pit excavations, and/or Contractor work area disturbance that may cause temporary impacts to jurisdictional wetlands would require a Section 404 permit from the USACE.

Regional Water Quality Control Board (RWQCB). The California State Water Resources Control Board (SWRCB) administers the 401 Water Quality Certification and Wetlands Program as part of the Clean Water Act and Porter-Cologne Water Quality Control Act. Under the Program, the State, delegating regulation to the RWQCBs, “protects all waters in its regulatory scope, but has special responsibility for wetlands, riparian areas, and headwaters.” As such, construction projects that affect navigable waters or wetlands or discharge fill or dredged materials that would require a Clean Water Act Section 404 Permit would also require a Section 401 Certification.

The Project’s proposed bypass alternatives are anticipated to temporarily impact wetlands regulated under the Clean Water Act Section 404, as described above, and therefore, a Section 401 Water Quality Certification would be needed from the RWQCB.

California Department of Fish and Wildlife (CDFW). CDFW operates the Lake and Streambed Alteration (LSA) Program, which requires notification to CDFW for activities within jurisdictional waters of the State that will:

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use material from the bed, channel or bank of any river, stream, or lake; or

- Deposit debris, waste or other materials that could pass into any river, stream or lake.

As such, projects that trigger any of the above conditions require consultation with CDFW to develop a Streambed Alteration Agreement (SAA). If the Project's bypass system crosses Bedford Slough or impacts Soscol Creek, below the top of the bank, it is possible that a SAA would be necessary.

Union Pacific/California Northern Railroad. The California Northern Railroad Company operates 256-miles of railways throughout northern California for the purposes of commodity transportation. One section of the California Northern Railroad parallels Napa River and the proposed Project alignment and crosses Soscol Ferry Road at the entrance to the SWRF. Trunk sewer rehabilitation is not anticipated to require encroachment on or adjacent to the railroad, so no encroachment permit is anticipated to be required for this work. However, the bypass system may encroach on the railroad right-of-way at Bedford Slough and/or near the SWRF.

If the bypass alignment that is selected follows the pipe alignment, the above-grade bypass pipeline would mostly be within NapaSan's existing easement. However, at Bedford Slough, the only feasible option to cross the waterway is to lay the bypass pipeline parallel to the railroad on top of the culvert. The distance between the edge of the eastern rail and the top of the culvert wall is approximately seven feet. Due to this narrow corridor and close proximity to the railroad, a letter of permission from the railroad may be required for the installation of the temporary bypass pipeline at this location. It is recommended that NapaSan correspond with the California Northern Railroad Company about placing the bypass pipeline adjacent to the railroad.

For any of the bypass alignment options, the bypass pipeline must cross the railroad tracks in one location near the SWRF. In order to avoid impacting the railroad, the Project would use an existing storm water culvert located approximately 120-feet south of Soscol Ferry Road to string the bypass pipeline(s) through in order to reach the SWRF without trenching or directly impacting Soscol Creek. However, because the culvert conveys storm water, regulatory permitting conditions may apply to this bypass option as well.

Anticipated permits and approvals are summarized in **Table 2-3**.

Table 2-3: Permits and Approvals

Agency	Permit/ Approval
Caltrans	Notification or Encroachment Permit
County of Napa	Encroachment Permit
City of Napa	Encroachment Permit
Napa County Regional Park & Open Space District	Notification of planned work and potential shut-down of the Napa River Trail
City/County Flood	Placement of bypass pipeline through stormwater culvert
Private Landowners	Temporary Construction Easements (see Table 2-2)
Utilities	Underground Service Alert ticket Utility "A" letters; follow-up Utility "B" letters
US Army Corps of Engineers	Clean Water Act Section 404 Permit (for impacts to federal jurisdictional waters or wetlands)
Regional Water Quality Control Board	Clean Water Action Section 401 Water Quality Certification
State Water Resources Control Board	Notice of Intent (NOI) for coverage under National Pollutant Discharge Elimination System (NPDES) Construction General Permit
California Department of Fish and Wildlife	Section 1600 Lake and Streambed Alteration Agreement (for impacts to state jurisdictional waters or wetlands)
California Northern Railroad Company	Letter of Permission (if chosen bypass alignment encroaches the railroad right-of-way)

3. ENVIRONMENTAL CHECKLIST FORM

1. **Project title:** 66-inch Trunk Sewer Rehabilitation: Kaiser Road to Soscol Water Recycling Facility (CIP 19701)
2. **Lead agency name and address:** Napa Sanitation District
1515 Soscol Ferry Road
Napa, CA 94558
3. **Contact person and phone number:** Karl Ono, PE
(707) 258-2013
4. **Project location:** The proposed Project is located in Napa County, California. It is generally bounded to the north by Kaiser Road, to the east by Napa Valley Corporate Drive, to the south by the Soscol Water Recycling Facility, and to the west by the Napa River.
5. **Project sponsor's name and address:** Napa Sanitation District
1515 Soscol Ferry Road
Napa, CA 94558
6. **General plan designation:** Project components in the County of Napa overlie the following General Plan Designations: Industrial; Napa Pipe Mixed Use/Study Area; Agriculture, Watershed & Open Space; and Public-Institutional. Project components in the City of Napa overlie the following General Plan Designations: Corporate Park (CP-720); Light Industrial (LI-722); and Resource Area (RA-722).
7. **Zoning:** Project components in the City of Napa overlie the following Zoning designations: Agricultural Resource (AR), Light Industrial (IL), Industrial Park (IP-A, IP-B, and IP-C), and Public/Quasi-Public School and Health Facilities District. Project components in the County of Napa overlie the following Zoning designations: Agricultural Watershed (AW:AC), General Industrial (GI:AC), Industrial (I:AC), Industrial Park (IP:AC), Napa Pipe Mixed-Use Residential Waterfront (NP-MUR-W:AC), Napa Pipe Mixed-Use Industrial/Business Park (NP-IBP:AC), Napa Pipe Mixed-Use Industrial/Business Park Waterfront (NP-IBP-W:AC), and Public Lands (PL:AC).
8. **Description of Project:** The proposed Project includes rehabilitation of approximately 6,985 linear feet of 66-inch diameter trunk sewer pipeline in Napa County, California. Rehabilitation methods include either Cured In Place Pipe (CIPP) or use of spiral wound lining. To conduct the sewer rehabilitation/replacement work for CIPP method, installation of a temporary sewer bypass system would be necessary because flow in the existing trunk sewer cannot be diverted within the existing NapaSan sewer system, and rehabilitation work cannot be conducted in live flow. Therefore, the proposed Project would also include up to 18,000 linear feet of temporary sewer bypass pipelines. The temporary bypass pipelines would be installed above-ground except at roadway and driveway crossings and through intersections where they would be temporarily shallow buried. There are several options for the placement of the bypass pipelines; this analysis evaluates the potential environmental impacts of all options. The preferred option is CIPP using Bypass Alternative 2 for crossing of the Bedford Slough.
9. **Surrounding land uses and setting:** The 66-inch trunk sewer to undergo rehabilitation/replacement and the temporary bypass pipeline alignment options cross the former Napa Pipe manufacturing property, Bedford Slough and Soscol Creek, the Union Pacific/California Northern Railroad, the Napa Valley River Trail, and are located on the east side of the Napa River. The land uses surrounding the proposed Project area include light industrial, industrial park, agricultural land, and the undeveloped Napa Pipe property. The owner of the 154-acre Napa Pipe

property has proposed a high-density residential neighborhood with open space, neighborhood-serving retail, restaurants and a hotel on the western portion of the site (about 63 acres), and a Costco on the eastern portion of the site.

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

- California Department of Transportation (Caltrans): Notification or Encroachment Permit
- County of Napa: Encroachment Permit
- Napa County Regional Park & Open Space District: Notification of Temporary Napa River Trail shut-down
- City of Napa: Encroachment Permit
- City/County Flood: Placement of bypass pipeline through stormwater culvert
- California Department of Fish and Wildlife: Section 1602 Lake and Streambed Alteration Agreement (for impacts to state jurisdictional waters or wetlands)
- California Northern Railroad Company: Letter of Permission (if chosen bypass alignment follows the trunk sewer alignment at Bedford Slough crossing)
- Private property: temporary construction easements
- State Water Resources Control Board: NOI for coverage under NPDES Construction General Permit
- Regional Water Quality Control Board: Clean Water Act Section 401 Water Quality Certification
- US Army Corps of Engineers: Clean Water Act Section 404 Permit (for impacts to federal jurisdictional waters or wetlands)
- Utilities: Underground Service Alert; Utility "A" letters; follow-up Utility "B" letters

11. Have California Native American tribes traditionally and culturally affiliated with the Project area requested consultation pursuant to Public Resources Code section 2180.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

One Native American tribe (Yocha Dehe Wintun Nation) identified that the Project is located within its cultural territory and requested information about the Project. Responses were sent that included the requested Project information. Additionally, NapaSan offered to meet and consult further on the Project if requested by the Tribe. The Historic Property Survey Report prepared for the Project by Basin Research (November 2019) contains procedures to follow if tribal cultural resources are uncovered during Project excavation. The cultural resources report has been provided to the Tribe.

Environmental Factors Potentially Affected

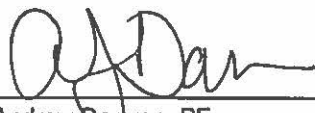
The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. With adherence to the mitigation measures identified within this IS/MND, the potentially significant impacts would be reduced or minimized to a less than significant level.

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

DETERMINATION: (To be completed by Lead Agency)

On the basis of this initial evaluation:

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



Andrew Damron, PE
District Engineer

03/23/2020

Date

3.1 Aesthetics

Except as provided in Public Resources Code Section 21099, 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Napa County (County of Napa 2013) considers the views of vineyards, wineries, and the hills and valleys in the eastern portion of the county to be visual resources that support its rural, agricultural aesthetic. The City of Napa (City of Napa 2015) considers its historic buildings, open space views, and traditional central downtown important to its small-town character. None of the roads are officially designated as State scenic highways, although segments of State Route 12/29, State Route 121 and State Route 221 are eligible for scenic highway designation (Caltrans 2017). The City (City of Napa 2015) has identified visual gateways and scenic corridors along State Routes 121 and 221 approximately one to three miles north of the Project site. There are approximately 280 miles of county-designated scenic roadways in Napa County (County of Napa 2013). The County's 2001 Viewshed Protection Ordinance sets hillside development standards to minimize the impact of man-made structures and grading on views from designated public roads in the County. The ordinance is intended to preserve the County's scenic quality and protect the ridgelines and hillsides from insensitive development. Near the proposed Project area, State Route 12/29, which runs east-west immediately south of the Project area, and north-south 1 mile west of the Project area, is subject to the County's viewshed protection program (County of Napa 2013).

Napa County maintains a naturally low-light, dark-sky environment through planning, requiring low-light forms of lighting, and eliminating light sources whenever possible (County of Napa 2013). County policies to prevent excessive light and glare include limiting street lighting to the minimum amount needed for public safety (Policy CC-32, County of Napa 2015), designing buildings that are visible from the County's designated scenic roads to avoid the use of reflective surfaces which could cause glare (Policy CC-33, County of Napa 2013), and designing new development in rural areas to limit upward and sideways spillover of light (Policy CC-34, County of Napa 2013).

City of Napa restricts outdoor lighting through its Zoning Code. For example, Municipal Code Title 17 – Zoning, Chapter 17.14 Industrial Districts, states, “Exterior lighting shall be directed or shielded so as to prevent glare onto public streets and abutting residential properties.” Furthermore, the City has adopted Part 6 of Title 24 of the California Buildings Standards Code, which contains standards that regulate lighting such as, maximum power and brightness, shielding, and sensor controls which help reduce the impacts of light pollution (City of Napa Municipal Code Title 15 – Buildings and Construction, Chapter 15.04 – Building Standards and Regulations).

a) Less than Significant Impact

Construction equipment and activities for the CIPP or spiral wound liner sewer rehabilitation, manhole rehabilitation/replacement, bypass alignment alternatives and bypass pumps would temporarily obstruct some scenic vistas in the areas immediately surrounding the active sewer rehabilitation work areas, including public views of vineyards and open spaces from the Napa Valley River trail and surrounding public roadways. However, impacts would be temporary and would occur in different locations along the pipeline and temporary bypass pipe alignments during the nine-month construction period. The proposed Project would not erect permanent structures that would affect scenic vistas. Impacts would be temporary and limited to the active disturbance footprint; therefore, impacts would be less than significant.

b) No Impact

Nearby road segments are eligible for listing as State scenic highways, including the segment of State Route 221 between State Routes 12/29 and 121 approximately 0.5-miles east of the Project site; the segment of State Route 12/29 from State Route 221 approximately 1 mile south east of the Project area, south towards Vallejo; and State Route 121 from the intersection with State Route 221 approximately 1.5-miles north east of the Project area, north towards Napa. However, these roadways are not designated State scenic highways.

Nearby road segments are identified by local jurisdictions as having scenic qualities. State Route 12/29, which runs east-west through the Project area, and north-south one mile west of the Project area, is subject to the County's viewshed protection program. The purpose of the viewshed ordinance is to ensure future improvements are “compatible with existing land forms, particularly County ridgelines and that views of the County's many unique geologic features and the existing landscape fabric of the County's hillside areas are protected and preserved” (County of Napa Municipal Code Chapter 18.106). The ordinance provides hillside development standards and creates a development review process. The closest City-designated scenic corridor is located approximately one mile to the north and would not be impacted by the proposed Project. The proposed Project would not construct permanent buildings or structures that would impact the scenic views from public roadways. The proposed Project would not result in permanent damage to scenic resources. Therefore, there would be no impact on scenic resources.

c) Less than Significant Impact

The proposed Project would not involve permanent man-made structures or grading that would impact views from designated public roads, and it would not affect the County's ridgelines or hillsides. Therefore, it would not conflict with the County's 2001 Viewshed Protection Ordinance. The proposed Project area is approximately one mile south / southwest of the nearest City visual gateway and would be far enough away so as not to conflict with aesthetic character of the visual corridor. During construction, the Project would temporarily degrade the visual quality of the surrounding site due to the presence of construction equipment and the above ground sewer bypass pipeline under CIPP method. However, once the rehabilitation work is complete and the temporary bypass pipelines are removed, the construction areas would be restored. Impacts would not be permanent or substantial and would thus be less than significant.

d) Less than Significant Impact

Although bypass pumps required with CIPP would operate 24/7 and a minimal construction crew would be on-site to monitor the operation at night, overall nighttime lighting would be minimal. No sewer rehabilitation work, under either CIPP or spiral wound lining methods, would require use of flood lights at night. Glare and headlight lighting associated with the Project's construction equipment would be similar to existing sources at the Project area (e.g., vehicles that currently use the roadways in which the trunk sewer improvements and bypass pipelines would be located are already a source of light and glare). The proposed Project would not involve excessive lighting or construction equipment beyond what would be necessary for timely completion of Project construction. For these reasons, short-term impacts associated with new sources of light and glare would be less than significant. After construction, temporary lighting and construction equipment would be removed; the Project would not introduce a permanent new source of light or glare. Impacts would be less than significant.

Mitigation Measures: None required or recommended.

3.2 Agriculture and Forestry Resources

Would the Project:	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a-b) Less than Significant Impact

As shown in **Figure 3-1**, the proposed CIPP bypass pipelines would be located on land that is recognized by the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (DOC FMMP 2016) as

Prime Farmland, Farmland of Local Importance, Unique Farmland, and Grazing Land. The 66-inch trunk sewer is located on lands recognized as Urban and Built-Up, and Grazing Land (DOC FMMP 2016). There are no lands identified by the DOC FMMP as Farmland of Statewide Importance in the proposed Project area. As shown in **Figure 2-3**, the Project would overlap land that is zoned for agricultural use. The proposed Project would result in temporary impacts to farmland along equipment access pathways, at CIPP or spiral wound liner staging areas, and along the CIPP temporary bypass alignments. All impacts would be temporary and would not result in the permanent conversion of agricultural lands. The Project would have a less than significant impact related to conversion of farmland to non-agricultural use.

c-d) No Impact

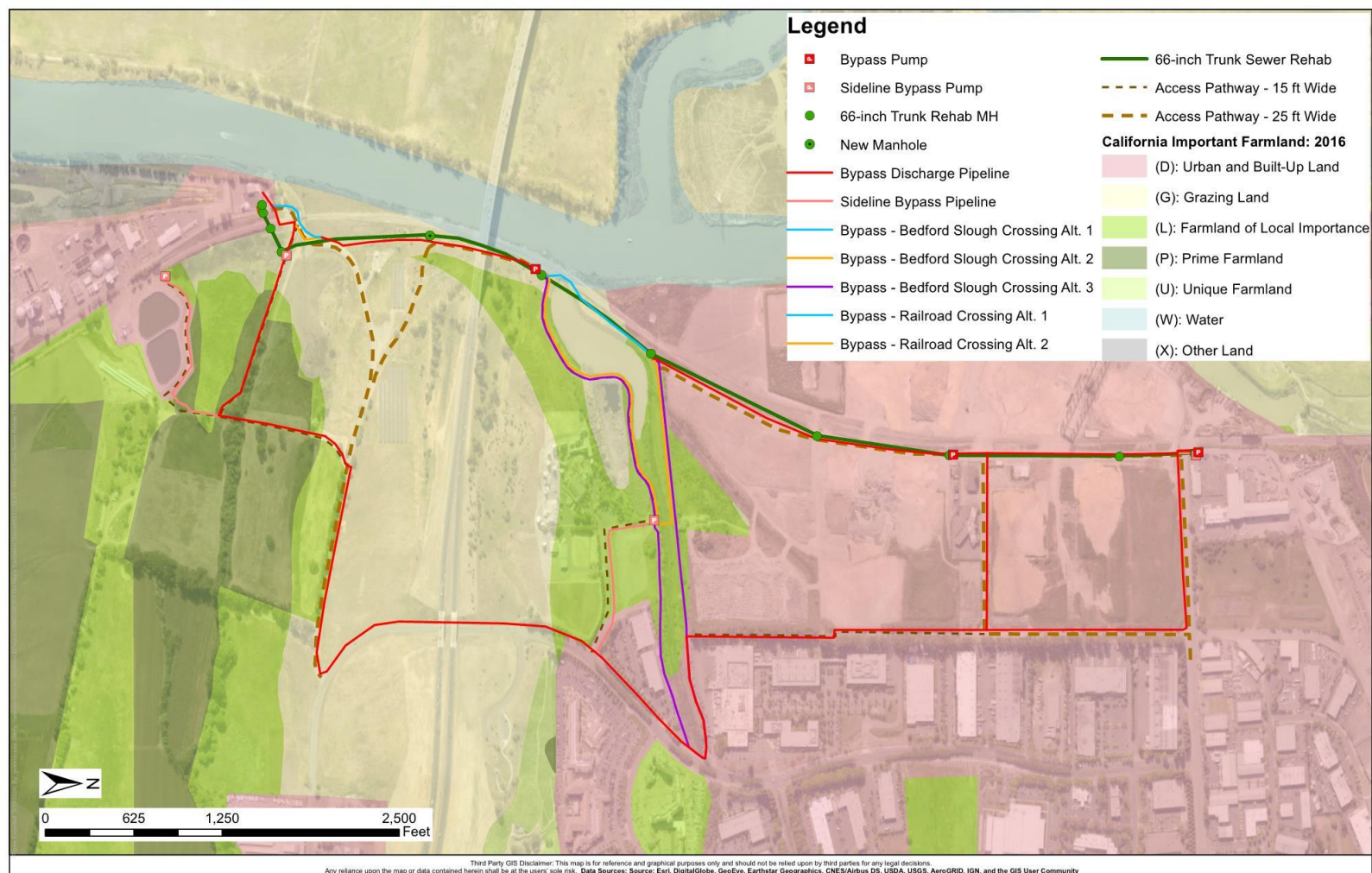
There are no lands zoned for forest land or timberland in the area of the proposed Project. The proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.

e) No Impact

The proposed Project would result in temporary impacts to farmland along equipment access pathways, at CIPP and spiral wound liner staging areas, and along the CIPP temporary bypass alignments. All impacts would be temporary, the Project site would be fully restored upon completion of the seven-month construction period, and the Project would not result in a permanent change in existing conditions. There would be no impact related to the indirect conversion of farmland or forest land to non-farmland or non-forest land use.

Mitigation Measures: None required or recommended.

Figure 3-1: Farmland



Source: DOC FMMP 2016

3.3 Air Quality

	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Would the Project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors or adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

The proposed Project area lies within the San Francisco Bay Area Air Basin (SFBAAB). The Bay Area Air Quality Management District (BAAQMD) is the local agency responsible for developing and implementing the Bay Area Clean Air Plan (CAP) for attaining and maintaining air quality in the SFBAAB within federal and state air quality standards. The BAAQMD regulates most air pollutant sources, except for motor vehicles, marine vessels, aircraft, and construction equipment, which are regulated by the California Air Resources Board (CARB) or the United States Environmental Protection Agency (USEPA). State and local government projects are subject to BAAQMD requirements if the sources are regulated by the BAAQMD. The BAAQMD monitors air pollutant levels to ensure the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are met and, if they are not met, to develop strategies to meet the standards.

The NAAQS, which are required under the Clean Air Act to be determined by the USEPA, provide public health protection, including protecting the health of sensitive populations such as asthmatics, children, and the elderly (USEPA 2019). Similarly, the CAAQS are established to protect the health of the most sensitive groups and are mandated by State law. US EPA has set NAAQS criteria for six pollutants, which are called "criteria pollutants": Carbon Monoxide (CO), Lead (Pb), Nitrogen Dioxide (NO₂), Ozone (O₃), Particulate Matter (PM₁₀ and PM_{2.5}), and Sulfur Dioxide (SO₂). California has added three additional criteria pollutants: Hydrogen Sulfide (H₂S), Visibility Reducing Particles, and Vinyl Chloride. In addition, California regulates about 200 different chemicals, referred to as toxic air contaminants (TACs) (CARB 2019).

Depending on whether or not the NAAQS or CAAQS are met or exceeded, the SFBAAB is classified as being in "attainment" or "nonattainment." The 2017 *Clean Air Plan* (BAAQMD 2017b) assesses the attainment status of the SFBAAB. The NAAQS and CAAQS attainment statuses are listed in **Table 3-1**. As shown therein, the SFBAAB is in nonattainment for the State standards for one hour ozone, nonattainment for both the State and federal standards for eight hour ozone, nonattainment for fine particulate matter, PM_{2.5}, and nonattainment for respirable particulate matter, PM₁₀. Thus, the SFBAAB is required to implement strategies that would reduce pollutant levels to recognized standards. The 2017 *Clean Air Plan* provides a strategy for the attainment of State and federal air quality standards.

Table 3-1: Criteria Pollutant Attainment Status – San Francisco Bay Area Air Basin

Pollutant	State (CAAQS)	Federal (NAAQS)
O ₃ – 1-hour	Nonattainment (0.09 ppm)	--
O ₃ – 8-hour	Nonattainment (0.070 ppm)	Nonattainment (0.070 ppm)
CO – 1-hour	Attainment (20 ppm)	Attainment (35 ppm)
CO – 8-hour	Attainment (9 ppm)	Attainment (9 ppm)
PM _{2.5} – 24-hour	--	Nonattainment (35 µg/m ³)
PM _{2.5} – Annual	Nonattainment (12 µg/m ³ – 3-year max)	Attainment (12 µg/m ³)
PM ₁₀ – 24-hour	Nonattainment (50 µg/m ³)	Unclassified (150 µg/m ³)
PM ₁₀ – Annual	Nonattainment (20 µg/m ³)	--
SO ₂ – 1-hour	Attainment (0.25 ppm)	Unclassifiable (75 ppb)
SO ₂ – 24-hour	Attainment (0.04 ppm)	Attainment (0.14 ppm)
NO ₂ – Annual	Attainment (0.030 ppm)	Attainment (0.053 ppm)
NO ₂ – 1-hour	Attainment (0.18 ppm)	Unclassifiable (100 ppb)
Lead	--	Attainment (0.15 µg/m ³)

Source: BAAQMD 2017b.

The BAAQMD provides numerical thresholds to analyze the significance of a project's construction and operational emissions on regional air quality. These thresholds are designed such that a project consistent with the thresholds would not have an individually or cumulatively significant impact on the SFBAAB's air quality. These thresholds are listed included in **Table 3-2** (along with the proposed Project's estimated emissions which are discussed under in Section 3.3 (b), below).

a) Less than Significant Impact

The BAAQMD 2017 *Clean Air Plan*, which assesses the attainment status of SFBAAB and provides a strategy for attainment of State and federal air quality standards, is the applicable air quality plan. The 2017 *Clean Air Plan* strategies build on key BAAQMD programs and initiatives, and federal, state, regional, and local policies, plans, and programs. The 2017 *Clean Air Plan* also relies on the Association of Bay Area Governments and Metropolitan Transportation Commission's (ABAG & MTC 2013 *2013 Plan Bay Area*, a sustainable communities strategy that integrates the region's land use and transportation plans.

A project would conflict with or obstruct an applicable air quality plan if it would lead to population, housing or employment growth that exceeds the forecasts used in the development of the applicable air quality plan. The proposed Project would rehabilitate an existing trunk sewer with a design capacity based on established population growth projections. Therefore, the proposed Project would not lead to population, housing or employment growth that exceeds the forecasts used in the development of the 2017 *Clean Air Plan*. Potential for conflicts with the 2017 *Clean Air Plan* would be less than significant.

b) Less than Significant with Mitigation Incorporated

The proposed Project would result in emissions of criteria pollutants from short-term construction activities and long-term operational activities. Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod 2016.3.2), used throughout California to quantify criteria pollutants and greenhouse gas emissions (GHGs).

The CalEEMod emissions scenarios were based on project-specific information, found in *Section 2 Project Description*. In instances where project-specific information was not available (e.g., construction equipment horsepower, length of worker trips, soil moisture content), the analysis relied on CalEEMod default values for construction activities.

BAAQMD recommends following current best management practices for controlling fugitive dust emissions. These best management practices, such as watering of exposed soils, were incorporated into the CalEEMod emissions estimates and are included in the unmitigated emissions estimates in **Table 3-2**.

Construction Emissions

Emissions of criteria pollutants during CIPP sewer rehabilitation and manhole work and installation and operation of the bypass system would result from the use of construction equipment with internal combustion engines, and offsite vehicles to transport workers, deliver materials to the site, and haul export material from the site. Project construction would also result in fugitive dust emissions, which would be lessened through the implementation of the fugitive dust control measures recommended by BAAQMD. Sewer rehabilitation under spiral wound lining optional method would require similar construction equipment and would generate fugitive dust emission, but requires no bypass system, so overall construction vehicles and equipment usage would be less than the CIPP method. This air quality analysis thus focuses on the CIPP rehabilitation and bypass system which represents maximum usage of equipment and vehicles.

Table 3-2 summarizes the average daily pollutant emissions during the various construction phases of the Project under CIPP method. The table presents both the unmitigated and mitigated construction emissions results. Mitigated results assume 60 percent of the construction equipment vehicles would run on Tier 4 engines (**Mitigation Measure AQ-1**). The model presents both the average daily emissions for each phase of construction, as well as the average daily emissions over the entire construction period. Phases were modeled consistent with *Section 2.4.5 Equipment / Staging / Trips*. Variations in emissions were negligible among the alternative bypass pipeline alignments.

Table 3-2: Proposed Project Average Daily Construction Emissions: Unmitigated vs. Mitigated (lbs/day)

Emissions Source	Days	ROG	NO _x	PM _{2.5} (Exhaust)	PM ₁₀ (Exhaust)	PM _{2.5} (Dust)	PM ₁₀ (Dust)
Unmitigated							
Bypass pipeline and pump installation	10	7.1	65.3	3.1	3.2	<1	<1
Sewer Cleaning & CIPP lining	106	7.6	71.9	2.9	3.2	1.8	4.6
Bypass pipeline and pump disassembly and site restoration	10	7.2	31.0	1.5	1.6	<1	<1
Total Average Daily Emissions	126	7.6	68.1	2.8	3.0	1.5	3.9
<i>BAAQMD Regional Thresholds</i>		54	54	54	82	BMP	BMP
Threshold exceeded?		No	Yes	No	No	No	No
Mitigated (60% Tier 4 Engine Equipment Vehicle Fleet)							
Bypass pipeline and pump installation	10	3.0	22.3	<1	<1	<1	<1
Sewer Cleaning & CIPP lining	106	5.1	44.3	1.7	1.9	1.8	4.6
Bypass pipeline and pump disassembly and site restoration	10	6.4	21.0	1.0	1.0	<1	<1
Total Average Daily Emissions	126	5.1	40.7	1.6	1.7	1.5	3.9
<i>BAAQMD Regional Thresholds</i>		54	54	54	82	BMP	BMP
Threshold exceeded?		No	No	No	No	No	No
Notes: NO _x (oxides of nitrogen) and ROG (reactive organic gases)/VOC (volatile organic compounds) are ozone precursors, which chemically react in the presence of sunlight to form ground-level ozone. Values may not sum due to rounding. See Appendix A for CalEEMod output sheets. Figures are from mitigated emissions scenario to account for standard dust control measures. Source for Regional Thresholds: BAAQMD 2017a. Measure OR-1 and OR-2 of the Draft Napa County Climate Action Plan state: "Requiring Tier 4 equipment and the use of renewable diesel, other alternative fuels, or zero-emission vehicles for all construction activity and mining operations throughout the County will reduce emissions annually by 5,668 MTCO ₂ e by 2030." (County 2019).							

As shown in **Table 3-2**, the unmitigated Project construction emissions would exceed BAAQMD regional NO_x thresholds. However, with implementation of **Mitigation Measure AQ-1** requiring use of a 60 percent Tier 4 engine fleet, the Project construction emissions would be below all BAAQMD thresholds. Therefore, impacts on regional air quality and local receptors due to construction-related air pollutant emissions would be less than significant with mitigation.

Operational Emissions

Long-term, operational emissions of criteria pollutants would result from motor vehicle trips associated with operations and maintenance (O&M) of the rehabilitated trunk sewer. However, as explained in *Chapter 2 Project Description*, NapaSan would continue to operate its sewer system with no operational modifications. Thus, the Project would not

result in a change in existing O&M activities. The Project does not propose new, permanent stationary infrastructure, such as buildings or pump stations, that would substantially increase demand for electricity or natural gas and increase indirect, long-term air pollutant emissions.

Overall, O&M emissions associated with the rehabilitated 66-inch trunk sewer would be minimal, and therefore, the proposed Project would not result in a cumulatively considerable net increase of a criteria pollutant for which the SFBAAB is in non-attainment. Operational increase in criteria pollutants would be less than significant.

c) Less than Significant Impact

Sensitive receptors are typically defined as schools (preschool – 12th grade), hospitals, resident care facilities, senior housing facilities, day care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. The proposed Project lies within areas designated as industrial and agriculture zones with no sensitive receptors in the vicinity.

As discussed under “b” above, the Project’s construction and operational emissions would not exceed the BAAQMD regional thresholds, which are set at levels that protect public health. Furthermore, construction emissions would be temporary and would not be located in the same location for the entire seven-month construction period. Emissions would be less than applicable thresholds with implementation of **Mitigation Measure AQ-1**. In addition, there would be a negligible increase in long-term operational emissions due to minimal change in O&M-related vehicle trips. Therefore, impacts, if any, to sensitive receptors would be less than significant.

d) Less than Significant Impact

The Project would involve emissions of sulfur compounds from use of oil and diesel fuel during construction, which would potentially result in unpleasant odors. Construction would be temporary and would not be located in a single location for the duration of the seven-month construction period. Odorous emissions from construction equipment tend to dissipate quickly within short distances from the construction site. For the temporary sanitary sewer bypass system, the contract documents would include a requirement for the Contractor to develop and submit for Engineer’s acceptance an Odor Assessment and Odor Control Plan (OAOCP). Once the Project is operational, the underground trunk sewer would not be associated with odors. Any potential odors from the Project would dissipate quickly. The nearest receptors are the light industrial developments to the north of the Project that would not be impacted by potential odors from the Project. Impacts would be less than significant.

Mitigation Measures:

To minimize impacts associated with emission of criteria pollutants for which the Project area is designated non-attainment, specifically, NO_x, the Project would implement **Mitigation Measure AQ-1**. Impacts are considered less than significant with mitigation incorporated.

Mitigation Measure AQ-1: Tier 4 Rated Engines

Napa Sanitation District shall require the construction Contractor to use off-road equipment that meets the USEPA certified Tier 4 final engines or engines that are certified to meet or exceed the emission ratings for USEPA Tier 4 final or interim engines such that average daily NO_x emissions are lower than BAAQMD threshold of significance of 54 lbs/day. One way for this to be accomplished would be for at least 60 percent of the construction equipment and vehicles used for the Project to be equipped with Tier 4 final engines.

3.4 Biological Resources

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated Impact	Less Than Significant Impact	No
Would the Project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

This analysis is based on the *Biological Resources Assessment* prepared by WRA, Inc. for the proposed Project in February 2020 (WRA 2020), included in **Appendix B** and the *Preliminary Delineation of Potential Jurisdictional Waters of the US* (WRA 2019) included in **Appendix C**. WRA performed a literature review, and then conducted a site assessment of biological resources and a wetland delineation on August 27, 28, and 29, 2019. Following the site visits, an assessment was made of the potential for the special-status species documented during the database searches to occur within the Study Area based on the type, extent, and condition of habitats observed.

Jurisdictional wetlands were identified, and their boundaries mapped using the methods specified by the USACE, using data collected on vegetation, hydrology, soils, shifts in topography, and hydrologic precipitation levels. Non-wetland waters potentially jurisdictional under the Clean Water Act (CWA) and/or the California Fish and Game Code (CFGF) were delineated using a mix of surveyed topography data, high resolution aerial photographs, and a sub meter GPS unit. The ordinary high water mark (OHWM) or high tide line (HTL) was used to determine the extent of potential CWA Section 404 jurisdiction, while the top-of-bank was used to determine the extent of CFGF Section 1602 and CWA Section 401 jurisdiction. Streams with associated woody vegetation were assessed to determine if these areas would be considered riparian habitat by the California Department of Fish and Wildlife (CDFW). Non-wetland waters under Section 10 of the Rivers and Harbors Act were identified based on Navigable Waterways listed on the USACE website and the horizontal limit of USACE jurisdiction under Section 10 within these areas was located at mean high water (MHW).

The overall topography of the Study Area, defined as the footprint where direct ground disturbance would occur plus a 50-foot surrounding buffer is flat, ranging from approximately 8 to 30 feet above sea level. The temperature ranges from an average low of 48.1 to an average high of 82.8 degrees Fahrenheit. Average annual rainfall is 26.5 inches, with the majority falling between November and March. The local watershed is the Lower Napa River and the regional watershed is San Pablo Bay Estuaries. Several channels in the Study Area are hydrologically connected to the Napa River.

The Study Area is composed primarily of developed land and disturbed land. Upland, undeveloped areas consist of non-native grasslands and ruderal vegetation. No sensitive terrestrial land cover types were found to be present in the Study Area. Ruderal land (areas that are regularly disturbed and are dominated by weedy, non-native forbs) occur along roadsides and areas of past disturbance. Non-native grasslands in the Study Area are dominated by grass species that are not native to California and lack sensitivity, from a protected habitat perspective. Land cover types in the Study Area are illustrated in the *Biological Resources Assessment* (WRA 2020) and shown in Error! Reference source not found..

In addition to terrestrial land cover types, the *Biological Resources Assessment* (WRA 2020), informed by the *Preliminary Delineation of Potential Jurisdictional Waters of the US* (WRA 2019), identified several aquatic features in the Study Area, including sloughs, streams, and drainage ditches, and associated marsh habitat. Within the Study Area, potential seasonal wetlands protected under CWA Section 404 and Section 401 and the Porter-Cologne Water Quality Control Act are located primarily in man-made swales and roadside ditches. Vegetation within the potential seasonal wetlands are dominated by non-native grasses and forbs, but also include a handful of native species.

Brackish marsh within the Study Area, which is considered sensitive under CWA 401 and 401 and Porter-Cologne, as well as the County of Napa, occurs within the top-of-bank of the sloughs, brackish water ditches, and along the Napa River. It also occurs in isolated marsh areas likely fed by groundwater or culverts. Species associated with hardstem bulrush brackish marsh include saltmarsh bulrush (*Bolboschoenus maritimus* ssp. *paludosus*) and cattail. Species associated with pickleweed mats brackish marsh include salt marsh harvest mouse (*Reithrodontomys raviventris*), a federally listed species.

Freshwater cattail marsh, which is considered sensitive under CDFW, CWA 404/401, Porter-Cologne, and the County of Napa is located in the Study Area along the banks of a pond with a pedestrian path along its northern edge. It is dominated by narrow-leaved cattail (*Typha angustifolia*).

Riparian scrub characterized by arroyo willow thicket is located in a very small portion of the Study area along the eastern shores of a freshwater pond, as well as along Soscol Creek. Arroyo willow thicket is within CDFW jurisdiction and is considered sensitive by the County of Napa.

Figure 3-2: Land Cover Types in the Study Area

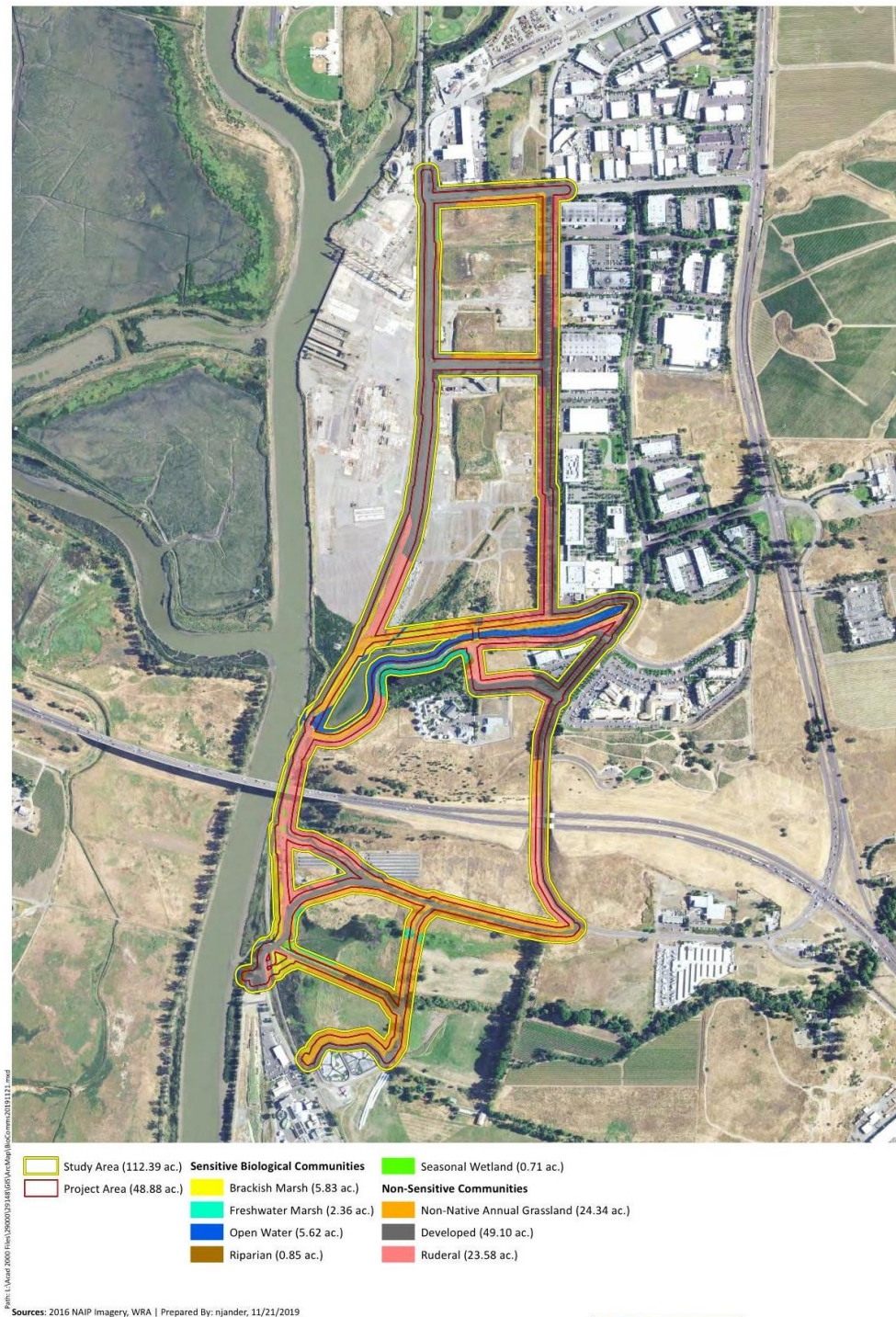


Figure 2. Land Cover Types in the Study Area
Page: 1

Napa Sanitary Trunk Rehabilitation Project
Napa, Napa County, California

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Within the Study Area, seven features which could be considered open water are present, including Bedford Slough, Soscol Creek, two streams, and three drainage ditches. These open waters are jurisdictional under CWA Section 404 and Section 401. Sloughs are also considered sensitive by the USACE, RWQCB, and CDFW. **Table 3-3** summarizes the potentially jurisdictional features mapped in the preliminary wetland delineation (WRA 2019).

Table 3-3: Summary of Potentially Jurisdictional Features Mapped within the Study Area

Habitat Type	Acres	Linear feet	Potential Waters of the U.S.	
			Section 10/404	Section 404
Wetland: Seasonal	0.47	--	--	0.47
Wetland: Perennial Marsh (non-tidal)	1.36	--	0.33	1.03
Wetland: Perennial Marsh (tidal)	1.25	--	0.03	1.22
Non-Wetland Water: Stream	0.20	480	--	0.20
Non-Wetland Water: Slough	1.30	2,153	0.66	0.64
Source: WRA 2019				

According to the *Biological Resources Assessment* (WRA 2020), there are 15 special-status plant species that have the potential to occur in the Study Area. These species are listed in Table 2 of the *Biological Resources Assessment* in Appendix B. The site survey was conducted at a time sufficient to identify eight of the potential special-status plants that have potential to occur in the Study Area. None of these were observed during the site survey. The *Biological Resources Assessment* determined further surveys were necessary to determine the presence of the remaining seven species.

No special status wildlife species were determined to be persistently present in the Study Area, with the exception of white-tailed kite (*Elanus leucurus*), which was observed during the site assessment, and salt marsh harvest mouse and tricolored blackbird (*Agelaius tricolor*), of which there are records of occurrence in the California Natural Diversity Database (CNDDB). Swainson's hawk (*Buteo swainsoni*) was determined to have "high potential" to occur in the Study Area. Eleven other special-status species were determined to have "moderate potential" to occur in the Study Area, including California black rail (*Laterallus jamaicensis coturniculus*), California Ridgway's rail (*Rallus obsoletus obsoletus*), California red-legged frog (*Rana draytonii*), pallid bat (*Antrozous pallidus*), Townsend's western big-eared bat (*Corynorhinus townsendii townsendii*), big free-tailed bat (*Nictinomops macrotis*), fringed myotis (*Myotis thysanodes*), San Pablo song sparrow (*Melospiza melodia samuelis*), San Francisco (saltmarsh) common yellowthroat (*Geothlypis trichas sinuosa*), yellow rail (*Coturnicops noveboracensis*), and Pacific (western) pond turtle (*Emys marmorata*).

a) Less than Significant with Mitigation Incorporated

Several special-status plants and wildlife have the potential to occur within the Project area and potentially significant impacts may occur without mitigation measures. Fifteen special status plant species have the potential to occur in the Project area, according to database searches. The August site visit concluded that eight of the species were not present in the Project area and that further study was necessary to determine the presence of the remaining seven species.

Mitigation Measure BIO 3A would require additional plant surveys and avoidance of special-status plants during Project construction, and would reduce impacts to less than significant.

As explained above, there are 15 special-status wildlife species that have moderate or high potential to occur in the Project area and have the potential to be impacted by the Project. Additionally, common nesting birds that are protected under the Migratory Bird Treaty Act and CFGC have the potential to be impacted. Mitigation measures would result in impacts being less than significant.

Bats. Trees at the Project site may support roosting special status bat species including pallid bat, Townsend's big-eared bat, big free-tailed bat, fringed myotis and maternity roosts of common bat species, which are protected under CFGC. No tree or building removal is proposed during the Project and if no tree removal or building demolition occurs, no measures to protect bats are required. However, if tree removal becomes necessary during Project development, **Mitigation Measure BIO 5A** would minimize effects on special status bats and all bat maternity roosts to less than significant levels. **Mitigation Measure BIO 5A** would require avoidance of large tree removal during the bat roosting season (September through January), require all trees felled during the non-maternity-roosting season be left on the ground for 24 hours prior to cutting up or removing to allow bats potentially present a chance to escape overnight, and if trees greater than 24 inches diameter at breast height (DBH) are removed during the bat maternity roosting season, require that a qualified biologist inspect the tree for maternity roosting bats prior to removal.

Common nesting birds and bird species designated as Species of Special Concern. Birds designated as species of special concern and non-special-status birds that are protected by the MBTA and CFGC may be impacted by the Project. Potential impacts on these species and their habitats could occur during the removal of vegetation or during ground-disturbing activities. These activities could result in the direct removal or destruction of active nests or may create audible, vibratory, and/or visual disturbances that cause birds to abandon active nests. **Mitigation Measure BIO 6A** would require a preconstruction survey by a qualified biologist, and avoidance of nests during construction using an established buffer area. With **Mitigation Measure BIO 6A**, impacts would be less than significant.

Salt marsh harvest mouse (SMHM). Within the Study Area, habitat for SMHM is restricted to areas adjacent to Bedford Slough, Soscol Creek and the Napa River where brackish marsh is present. As an overall percentage, habitat that is suitable for SMHM that would be impacted by the Project is very low. However, where suitable habitat is present, SMHM has a high potential to occur and must be avoided. Construction activities would occur in a relatively small work area of ruderal non-native grassland and brackish marsh, where the SMHM may occur in dense vegetation that is six or more inches tall. If vegetation structure is less than six inches tall and/or too sparse to provide cover from predators, the mouse is unlikely to occur in the Project disturbance area and unlikely to be adversely affected. If vegetation is suitable at the time of construction, mice could be impacted through vegetation removal, entrapment in staged equipment or machinery, and vehicle or equipment strikes. **Mitigation Measure BIO 4A** would require consultation with the USACE under Section 7 of the federal ESA, and concurrent engagement with CDFW, as well as avoidance and minimization measures. With implementation of **Mitigation Measure BIO 4A**, impacts on SMHM would be less than significant.

Tricolor Blackbird. During the August site visit, habitat within the Study Area was assessed to determine its capacity to support tricolored blackbird. Extensive areas of tules, other emergent macrophytes, and riparian vegetation that is likely to support nesting tricolor blackbirds are present in Bedford Slough and the species has been documented to breed in this area. Other areas that may be impacted by the proposed Project and may support tricolored blackbird include any areas where freshwater marsh or dense willow riparian vegetation is present within 500 feet of the Study Area. Tricolored blackbird was not observed in the Study Area during the August site visit. However, because of the presence of suitable habitat and a historic breeding occurrence, surveys and avoidance measures must be implemented to minimize effects or avoid impacts on tricolored blackbirds. For tricolored blackbird, **Mitigation Measure BIO 7A** would require a preconstruction nesting bird survey of suitable habitat and restriction of work to a distance of at least 500 feet from active nest. With mitigation, impacts would be less than significant.

White-tailed Kite. The open habitats within the Study Area may provide suitable foraging habitat for white-tailed kite while shrubs and trees both inside and immediately adjacent to the Study Area may provide suitable nesting structure. White-tailed kite have been observed in the Study Area and has a high potential to occur and may nest within the Study Area. Surveys and avoidance measures must be implemented to minimize effects or avoid impacts. **Mitigation Measure BIO 8A** would require a preconstruction nesting bird survey for white-tailed kite. If the active nests are detected, any work that could cause a disruption to parental care would be restricted to a distance sufficient to avoid nest failure, as determined by a qualified biologist. With mitigation, impacts would be less than significant.

Swainson's Hawk. SWHA is a species listed as threatened under the California Endangered Species Act and loss of foraging habitat is mitigated through the CEQA process. There are four nesting occurrences for SWHA within one mile of the Study Area, including one that is just under one half mile east of the Study Area. Several additional nest records are within 5 miles of the Study Area. The Study Area and its vicinity offer potential nesting sites in the form of large trees. Due to the presence of suitable nesting habitat and the availability of suitable foraging habitat in the vicinity of the Study Area, combined with nearby documented nesting occurrences, Swainson's hawk has potential to forage and/or nest in the Study Area or near enough to the Study Area that the Project could affect the species. Because active Swainson's hawk nests are difficult to detect during certain parts of its nesting period, **Mitigation Measure BIO 9A** requires a survey strategy for Swainson's hawk nest detection be developed by a qualified biologist and tailored to the specific anticipated start dates of the Project for areas of the Project area within 0.5 mile of potential nesting habitat. If nests are detected, **Mitigation Measure BIO 9A** requires an appropriate buffer be determined by a qualified biologist to avoid impacts. With implementation of **Mitigation Measure BIO 9A**, impacts on Swainson's hawk foraging and nesting activity would be less than significant. The Project would not result in the permanent loss of foraging or nesting habitat and only a very small amount of foraging habitat along developed areas would be temporarily impacted. Therefore, no mitigation for loss of Swainson's hawk nesting or foraging habitat would be required.

California Ridgway's rail and California black rail. Most of the Study Area does not contain habitat that is suitable for California Ridgway's rail and California black rail. However, some of the areas near the Napa River, Bedford Slough and Soscol Creek are potentially suitable. If the selected Project alignment will be close enough to have impacts on either rail species, **Mitigation Measure BIO 10A** would reduce potential impacts to less than significant by requiring a survey for California Ridgway's rail following the *USFWS California clapper rail Survey Protocol* between January 15 and February 1, concluding as late as mid-April. Concurrent with California Ridgway's rail surveys, surveys for California black rail would also be performed. The preferred survey window for California black rail is between March 15 and May 31. If either rail species is determined to be actively using the site, **Mitigation Measure BIO 10A** would require an avoidance buffer be applied around the occupied area to minimize the risk of potentially impacting rails and their nests. With mitigation, impacts would be less than significant.

California red-legged frog. The Study Area contains or is immediately adjacent to potentially suitable California red-legged frog aquatic breeding habitat, aquatic non-breeding habitat, upland habitat and dispersal habitat. The presence of California red-legged frog in the area is uncertain, although the species is assumed not to be present in developed areas, especially if the Project commences after June 1, when the frogs are unlikely to be dispersing across the landscape. The species is presumed to be present in non-developed areas based on the presence of nearby occurrences and suitability of habitat in the Study Area. **Mitigation Measure BIO 11A** would require consultation for California red-legged frog under federal ESA Section 7. Avoidance measures are likely to result from the Biological Opinion, provided that a "not likely to adversely affect" determination is made, which is expected because the proposed Project would impact only a very small area where California red-legged frog are likely to be found. The Section 7 Biological Opinion prescribed measures to avoid California red-legged frog are expected to include preconstruction surveys, delineation of potentially occupied habitat types, presence of monitors during ground disturbance in potentially occupied areas, worker training, and other measures. It is expected that all California red-legged frog can be avoided and there will be no requirement for a take authorization. With implementation of **Mitigation Measure BIO 11A**, impacts would be less than significant.

Pacific (western) pond turtle. The Project area does not contain aquatic habitat for this species, but Pacific pond turtles in the area may travel through the Project area and could potentially nest in ruderal grasslands between the access road and the wetlands. Though the amount of nesting habitat in the areas where ground will be disturbed by the Project is very minimal, if turtles attempted to nest in the Project area or move through during the nesting season, they could get trapped in project equipment or open excavations, or they could establish nests that would be disturbed by project earth work. **Mitigation Measure BIO 12A** would avoid impacts to this species by requiring a preconstruction survey in ruderal grasslands for suitable nesting habitat and pond turtles, avoidance of pond turtles and allowance for the turtles

to leave work areas on their own volition. **Mitigation Measure BIO 12A** would require demarcation and avoidance of nesting areas, and pond turtle worker training. With mitigation, impacts would be less than significant.

b) Less than Significant with Mitigation Incorporated

The majority of the impacts associated with the proposed Project would occur on developed land. The proposed Project would not substantially, permanently change the extent of developed land. A small acreage of non-sensitive biological communities such as ruderal and non-native grassland would be temporarily impacted. No substantial change to the extent of these communities would occur as a result of the proposed Project. No designated Critical Habitat or Essential Fish Habitat was found to be present in the Study Area.

Portions of the proposed Project would indirectly, temporarily disturb riparian habitat or other sensitive natural communities. All Project impacts would be temporary and access routes would avoid most sensitive habitats, where possible. This analysis conservatively evaluates the total potential impacts that would occur if all sewer bypass alignment alternatives were to be constructed. Because only one of the alternatives would be selected, the actual amount of impacted area is expected to be substantially less than the totals included in the impact acreage counts.

The proposed Project has the potential to temporarily impact riparian vegetation through trimming or trampling of vegetation along access ways which are adjacent to riparian vegetation. In addition, the Project would construct a temporary bridge across Bedford Slough as part of Bedford Slough Crossing Alternative 2 to support the temporary bypass pipe. The bridge has the potential to cause shading of vegetation within the riparian area on the banks of Bedford Slough. Approximately 1.57 acres of riparian vegetation is within the Project area. **Mitigation Measure BIO 2A** would require the Project to obtain a LSAA from the CDFW prior to construction for temporary impacts to riparian vegetation, and also requires flagging the edges of riparian vegetation where feasible and avoiding entry to the greatest extent practicable. If entry is unavoidable, appropriate avoidance and minimization measures provided in **Mitigation Measure BIO 1B** would be implemented to reduce temporary impacts. With mitigation, impacts would be less than significant.

c) Less than Significant with Mitigation Incorporated

State and federally protected wetlands, including marsh lands, are present in the proposed Project area and have the potential to be directly or indirectly affected. Wetlands would be largely avoided by the proposed Project or protected, to the extent possible, by thick mats to reduce the effects of vehicle traffic and avoided by conducting construction during the dry season.

Soil excavation for the CIPP work areas, bypass system road crossings and spiral wound lining access pits has the potential to alter wetlands through grading and excavation. Approximately 38 square feet of seasonal wetland would be temporarily impacted by soil excavation for the CIPP work areas and bypass system road crossings, and 542 square feet (0.01 acres) of brackish marsh and 22 square feet of seasonal wetland would be temporarily impacted by spiral wound lining access pit excavation areas. All areas to be excavated are to be restored to pre-construction conditions, thus the Project would not result in a permanent change to the extent of wetlands. Temporary impacts would be reduced to a less than significant level through incorporation of **Mitigation Measures BIO 1A, BIO 1B, and BIO 1C**.

Within the proposed access pathways and staging areas (CIPP staging areas, bypass components staging, etc.), compaction and/or temporary destruction of vegetation from trampling, shading, and/or staging would temporarily impact 3.36 acres of wetland habitat. No impacts to hydrology or function of wetlands are expected because the Project is proposed to be conducted outside of the wet season and heavy mats would be laid over wetlands. **Table 3-4** below summarizes overall staging and access pathway impact areas of the Project on each wetland type, excluding excavation impacts which were addressed in the paragraph above. The totals include all bypass alignment alternatives and therefore are greater than the actual impacts which will be dependent on the final alignment alternative selected.

Table 3-4: Overall Temporary Impacts to Wetlands from All Bypass Alignments

Wetland Type	Temporary Disturbance (Acre)	Temporary Disturbance (sq. ft.)
Brackish Marsh	2.30	100,188
Seasonal Wetland	0.47	20,473
Freshwater Marsh	0.59	25,700
Source: WRA 2020		

The Project would construct a temporary bridge across Bedford Slough as part of Bedford Slough Crossing Alternative 2 to support the temporary bypass pipe. Bedford Slough is a traditional navigable water within jurisdiction of the USACE under Section 10 of the Rivers and Harbors Act. The Bedford Slough Crossing Alternative 2, therefore, has the potential to temporarily impede movement along a traditionally navigable waterway. The Rivers and Harbors Act Section 10 requires that any structure in, under, or over a navigable waterway be permitted. However, Bedford Slough is a historic traditionally navigable waterway, but it is unlikely that navigation will be impeded by the Project. Under current conditions, Bedford Slough does not have navigational connectivity to the Napa River. As such, the proposed support structure for the temporary bypass structure, a small bridge, would not decrease the navigability of the waterways and would not be considered a significant impact under Section 10 of the Rivers and Harbors Act. Impacts would be less than significant, and no mitigation would be needed.

d) Less than Significant Impact

The *Biological Resources Assessment* (WRA 2020) evaluated whether the Project would impact wildlife corridors and determined it would not have the potential to be significant. Native wildlife nursery sites, including nesting bird habitat and maternity roosting bats habitat, are evaluated under question “a” above.

e) Less than Significant with Mitigation Incorporated

Natural resource use in Napa County is regulated by the Napa County General Plan (County of Napa 2013). County of Napa Policy CON-17 requires the preservation and protection of sensitive land cover types, including “native grasslands, serpentine grasslands, mixed serpentine chaparral, and other sensitive biotic communities and habitats of limited distribution.” According to Policy CON-17, the County, at its discretion, requires mitigation to prevent removal or disturbance of sensitive natural plant communities that contain special status-plant species or provide critical habitat for special-status animal species; requires avoidance of or mitigation for other sensitive natural plant communities; and requires no net loss of sensitive biotic communities and habitats of limited distribution.

The Napa County Baseline Data Report (County of Napa 2005) identifies the sensitive land cover types of limited distribution that are “worthy of conservation” under Policy CON-17. According to the Baseline Data Report, sensitive types within the area of the proposed Project include mixed willow riparian woodland, coastal brackish marsh, coastal and valley freshwater marsh, and northern coastal salt marsh. The *Biological Resources Assessment* (WRA 2020) found that the Project area contains 0.18 acres of arroyo willow thicket (mixed willow riparian woodland), 2.30 acres of brackish marsh (including both coastal brackish marsh and northern coastal salt marsh), and 0.59 acres of freshwater marsh (including coastal and valley freshwater marsh). Potential, temporary impacts include clearing of vegetation or other temporarily destructive activities. With implementation of **Mitigation Measure BIO 13A**, which requires sensitive land cover types to be marked and avoided during Project construction, impacts on sensitive land cover types protected by the County would be reduced to less than significant.

Napa County Code of Ordinances Section 18.108.025 requires a stream setback for areas of new land clearing, while Section 18.108.026 requires a 50-foot setback from delineated wetland boundaries for earthmoving activities, which may be reduced in limited circumstances. Aquatic features within the Project area which meet the County definition of a stream include Soscol Creek and the un-named stream which connects to it. Wetlands located within the project area

that meet the County definition include brackish marsh, freshwater marsh, and seasonal wetlands. The proposed Project temporary access pathways, temporary bypass lines, temporary bypass pumps, as well as bypass pipe excavation areas are within 35 feet of the streams and sloughs, which is within the area protected by Napa County Code of Ordinances. **Mitigation Measure BIO 14A** would require equipment staging areas be located in ruderal areas, topography be returned to pre-excavation grades, and seeding with native seeds to revegetate areas of disturbance. **Mitigation Measure BIO 15A** would require work around and within seasonal wetlands to occur during the dry season (April through October) and other appropriate measures to minimize impacts on aquatic features. With implementation of mitigation, impacts would be less than significant.

City of Napa Municipal Code Section 17.52.110 (Creeks and Other Watercourses) requires projects on parcels adjacent to streams and other watercourses to provide setbacks encompassing riparian habitat areas plus root protection zone from the edge of the tree canopy. Proposed Project activities may directly or indirectly impact the City-protected watercourse zone through fill, placement of equipment or material, destruction or loss of vegetation. Implementation of **Mitigation Measures BIO 16A** and **BIO 16B** would reduce impacts to less than significant.

City of Napa Municipal Code Section 12.45.020 defines protected native trees as certain species (see *Biological Resources Assessment*) that are located on private property over one acre in size zoned for agricultural, commercial, or industrial purposes. City of Napa Municipal Code Section 12.45.030 defines significant trees as those designated by the City Council and meeting certain criteria, such as uniqueness of size or age, significance for habitat protection, and aesthetic value. No removal of trees is expected to occur as a result of the proposed Project. Therefore, impacts on “protected” or “significant” trees would be less than significant, and mitigation is not required.

f) No Impact

There are no habitat conservation plans or natural community conservation plans within Napa County (WRA 2020). Therefore, the Project would have no impacts on any habitat conservation plans or natural community conservation plans.

Mitigation Measures:

Mitigation Measure BIO 1A: Wetland Avoidance. Excavation of all wetlands shall be avoided to the extent feasible, with the maximum buffer feasible. If excavation of wetlands cannot be avoided, avoidance and minimization measures listed in Mitigation Measure BIO 1B shall be utilized. If feasible, equipment used for the excavation of wetlands shall remain in developed or ruderal areas.

Mitigation Measure BIO 1B: Wetland Permits. NapaSan shall obtain a CWA Section 404 permit from the US Army Corps of Engineers and a CWA Section 401 Certification from the RWQCB. Permit conditions will be incorporated into the Project, and shall be followed. Permit conditions may include that functions and values of impacted wetlands to be restored to equal or better than existing wetland, with monitoring and performance criteria to be developed and approved to know when restoration has been satisfactorily achieved. The following avoidance and minimization measures are proposed as a part of the permit applications to reduce impacts described to less than significant

1. Best management practices shall be employed to reduce impacts to vegetation and to limit erosion. Vegetation removal shall be minimized to the greatest extent feasible. Areas where vegetation is removed should be replanted or seeded with native plants appropriate for the site. Erosion control measures, such as the use of silt fencing or straw wattles, should be installed along edge of aquatic features in areas of ground disturbance or vegetation removal within 50-feet of aquatic features.

2. To reduce potential temporary impacts to waters in the Study Area, best management practices shall be employed to reduce impacts associated with excavation and grading including erosion and sedimentation. Best management practices recommended by the Napa County Stormwater Pollution Prevention Program shall be implemented to minimize pollutants carried from the Study Area in runoff. The Project shall comply with terms of the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit and the California General Construction Storm Water Permit.
3. All staging, maintenance, and storage of construction equipment shall be performed in a manner to preclude any direct or indirect discharge of fuel, oil, or other petroleum products into the drainage channel or salt marsh vegetation. No other debris, rubbish, creosote-treated wood, soil, silt, sand, cement, concrete or washings thereof, or other construction related materials or wastes shall be allowed to enter into or be placed where they may be washed by rainfall or runoff into the drainage channel or salt marsh vegetation. All such debris and waste shall be picked up daily and properly disposed of at an appropriate site.
4. No equipment shall be operated in areas of flowing or standing water. No fueling, cleaning, or maintenance of vehicles or equipment will take place within any areas where an accidental discharge to the drainage channel or salt marsh vegetation may occur.
5. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete construction.
6. Where areas of bare soil are exposed, sediment and erosion control measures shall be used to prevent sediment from entering waters and wetlands. Sediment and erosion control structures shall be monitored and repaired or replaced as needed. Build-up of soil behind silt fences shall be removed promptly and any breaches or undermined areas repaired promptly. Revegetation of disturbed surfaces shall occur prior to the start of the first rainy season after construction.
7. The work area and sensitive areas shall be clearly demarcated in order to prevent impacts to habitat beyond the work limit and to prevent impacts to habitat within the work area that requires avoidance or clearance by a biological monitor prior to entry.
8. All sewer rehabilitation work shall be conducted during the dry season (April through October). Disassembly of the bypass system and restoration efforts shall occur in November. For work conducted outside the dry season, the above-mentioned BMP's shall be observed where applicable. Where areas of bare soil are exposed during the rainy season, erosion control measures (i.e. weed-free straw weighed down with jute fencing, hydroseeding over weed-free straw, etc.) shall be placed at the end of each day if precipitation is forecasted.
9. All excavated wetland areas shall be graded to pre-construction topography and seeded or planted with appropriate wetland plants.
10. Weighted mats shall be placed over wetlands that are expected to be temporarily impacted through driving or staging of materials.

Mitigation Measure BIO 1C: Wetlands Buffer. The edge of all wetlands within 50 feet of the Project Area shall be clearly marked and entry will be avoided. If a 50-foot buffer is not feasible, the edge of the wetland will be clearly marked and entry will be avoided.

Mitigation Measure BIO 2A: Riparian Vegetation. A Lake and Streambed Alteration Agreement (LSAA) should be obtained from CDFW prior to construction for temporary impacts to riparian vegetation. Edges of riparian vegetation should be clearly flagged where feasible and entry avoided to the greatest extent practical. If entry is unavoidable, appropriate avoidance and minimization measures provided in Mitigation Measure BIO 1B shall be

utilized to reduce the temporary impacts.

Mitigation Measure BIO 3A: Special Status Plants. A special-status plant survey shall be conducted in May and June to determine presence or absence of the remaining seven species. The surveys shall be conducted by a qualified biologist familiar with the flora of Napa County. The surveys shall be performed in accordance with those outlined by Napa County (2016b), which follow those described by resource experts and agencies (CNPS 2001, CDFW 2018c, USFWS 1996). Should individuals/populations of any special-status species be observed, the location and extent shall be mapped. Notes regarding number of individuals, quality of habitat, and potential threats shall be recorded. This information shall be compiled in a CNDDDB occurrence form and submitted to CDFW. Construction activities shall avoid the populations to the greatest extent practical. A no-touch buffer shall be imposed around each individual/population. The width of the buffer is species dependent and shall be determined by the qualified biologist. The buffer shall be flagged prior to construction activities. Construction crews shall be informed of the meaning of the flagging and the buffer. If avoidance is not practical, then a restoration plan shall be drafted for each impacted species. The restoration plan shall be submitted to the County for approval, prior to construction activities.

Mitigation Measure BIO 4A: Salt marsh harvest mouse. SMHM are assumed to be present in the Project Area where suitable habitat is present. Unless habitats that would support SMHM are avoided, NapaSan will enter consultation with the USACE under Section 7 of the Federal Endangered Species Act (FESA). Concurrently, NapaSan will engage the CDFW. Because SMHM is a California Fully-protected species, a permit for 'take' would not be likely to be issued. However, SMHM can be avoided for projects of this scale and implementation of avoidance measures will be employed to avoid any 'take' of SMHM. These measures will include the presence of an approved monitor during ground disturbance in potentially occupied areas. Habitat for SMHM shall be avoided through demarcation of potentially suitable habitats and worker educational training shall be conducted before the start of construction. Napa San will employ these measures and any additional measures for SMHM described in Project Permits.

Mitigation Measure BIO 5A: Bats. To avoid impacts to special status bats and all bat maternity roosts, removal of any large trees shall be conducted during the non-maternity roosting season, which coincides with the non-nesting season for birds during the months of September through January. Additionally, all felled trees shall be left on the ground for 24 hours prior to cutting up or removing the trees from the Study Area, allowing any roosting bats potentially present during the non-maternity-roosting season a chance to escape overnight. If trees greater than 24 inches DBH must be cut during the maternity roosting season, a qualified biologist shall inspect the tree for maternity roosting bats prior to removal

Mitigation Measure BIO 6A: Common nesting birds and bird species designated as Species of Special Concern. A survey for active bird nests shall be conducted by a qualified biologist no more than 14 days prior to the start of Project activities (vegetation removal, grading, or other initial ground-disturbing activities) because ground disturbing activities will commence in May which is during the nesting season (February 1 through August 31). The survey shall be conducted in a sufficient area around the Study Area to identify the location and status of any nests that could potentially be directly or indirectly affected by vegetation removal, or grading activities. Upon completion of the surveys, any nests discovered will be avoided through a work exclusion buffer determined by a qualified biologist to avoid and reduce impacts. Buffers will be sufficiently large and long in duration such that nest abandonment is avoided. The qualified biologist will determine the buffer based on the species and the type of disturbance anticipated to result from Project Activities.

Mitigation Measure BIO 7A: Tricolored Blackbird. For tricolored blackbird, a preconstruction nesting bird survey shall be conducted. The survey area shall extend at least 500 feet from the area of potential disturbance when suitable habitat (dense emergent vegetation near open water) is present. If the active nests of tricolored blackbird

are detected, any work that could cause a disruption to parental care will be restricted to a distance of at least 500 feet from the active nest until a biologist has determined the nest is no longer active.

Mitigation Measure BIO 8A: White-tailed Kite. For white-tailed kite, a preconstruction nesting bird survey shall be conducted. The survey area shall extend at least 0.25 miles from the area of potential disturbance and be focused on shrubs and trees suitable for nesting. If the active nests of white-tailed kites are detected, any work that could cause a disruption to parental care will be restricted to a distance sufficient to avoid nest failure. This buffer may be increased or decreased pending observation of the nest by a qualified biologist who will determine the appropriate size of the buffer based on the type of disturbance and response of the individual birds.

Mitigation Measure BIO 9A: Swainson's hawk. Because active Swainson's hawk nests are difficult to detect during certain parts of its nesting period, a survey strategy for Swainson's hawk nest detection shall be developed by a qualified biologist and tailored to the specific anticipated start dates of the Project, for parts of the Project Area within 0.5 miles of potential nesting habitat. This survey strategy shall be based on the CDFW guidance for Swainson's hawk protocol surveys. If nests are detected, an appropriate buffer will be determined by a qualified biologist to avoid impacts.

Mitigation Measure BIO 10A: California Ridgway's rail and California black rail. For California Ridgway's rail and California black rail, surveys following the "California clapper rail Survey Protocol (USFWS 2015) will be initiated between January 15 and February 1 and should conclude as late as mid-April. Concurrent with California Ridgway's rail surveys, surveys for California black rail will also be performed. The preferred survey window for California black rail is between March 15 and May 31. If either rail species is determined to be actively using the site, an avoidance buffer will be applied around the occupied area to minimize the risk of potentially impacting rails and their nests to less than significant.

Mitigation Measure BIO 11A: California red-legged frog. Preconstruction surveys shall be conducted to determine if CRLF are present in the Project Area. If present an approved monitor shall be present during ground disturbance in potentially occupied areas. Habitat for CRLF shall be avoided through demarcation of potentially suitable habitats and worker educational training shall be conducted before the start of construction. For areas that may support CRLF and will be impacted by Project Activities, the Section 7 consultation may prescribe additional measures to avoid CRLF and Napa San or any Project staff will implement these measures

Mitigation Measure BIO 12A: Pacific (western) pond turtle. Prior to construction activities, a biologist familiar with the ecology of pond turtles will survey work areas in ruderal grasslands for suitable nesting habitat and pond turtles. Pond turtles will be avoided and allowed to leave work areas on their own volition. Potential nesting areas will be demarcated and avoided to the extent feasible. Workers will receive a pond turtle training course that will educate them about identification of pond turtles and how to avoid them.

Mitigation Measure BIO 13A: County Protections for Sensitive Land Cover Types. Napa County General Plan Policy CON-17 requires the preservation and protection of sensitive land cover types. Edges of arroyo willow thicket (mixed willow riparian woodland), 2.30 acres of brackish marsh (includes both coastal brackish marsh and northern coastal salt marsh described above) and 0.59 acres of freshwater marsh (includes coastal and valley freshwater marsh described above) shall be clearly marked prior to construction activities. Entrance of construction crew, equipment shall be avoided to the extent feasible.

Mitigation Measure BIO 14A: County Setback Requirements for Aquatic Features. No land clearing for the bypass lines, access pathways, or bypass pump shall be conducted if located within 35-feet of a stream or slough, to the extent feasible. If land clearing is necessary, the following measures shall be executed to reduce impacts:

- Appropriate avoidance and minimization measures listed under Mitigation Measure BIO 1B

- Equipment shall be staged and operated in developed or ruderal areas at the greatest distance from the stream bank as possible while maintaining the ability to excavate. All excavation will occur from these developed/ruderal areas. If necessary hand-digging shall be used to reach areas where the equipment cannot.
- Post-excavation grading shall return topography to pre-excavation grades. Seeding of native seeds appropriate for the habitat and Napa County shall be used to revegetate the area of disturbance.

Mitigation Measure BIO 15A: Wetlands Buffer. If work within 50-feet of wetlands is to be conducted, the appropriate measures described in Mitigation Measure BIO 1B, shall be executed to reduce impacts

Mitigation Measure BIO 16A: Work Near Bedford Slough, Soscol Creek and Associated Streams: For Project work within the vicinity of Bedford Slough, Soscol Creek, and the associated streams, see Mitigation Measure BIO 14A above. Those measures shall mitigate impacts sufficient to meet City of Napa Code, including Section 17.52.110 (Creeks and Other Watercourse).

Mitigation Measure BIO 16B: Work Near Wetlands and Marsh: For Project work within the vicinity of wetlands and marsh, see Mitigation Measure BIO 1B above. Those measures shall mitigate impacts sufficient to meet City of Napa Code, including 17.52.530 (Wetlands and Marshes).

3.5 Cultural Resources

	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Would the Project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The term cultural resources, for the purposes of this analysis, refers to prehistoric and historic archaeological sites, districts, and objects; standing historic structures, buildings, districts and objects; and locations of important historic events or sites of traditional/cultural importance to various groups.

This analysis is based on a *Historic Property Survey Report / Finding of Effect* that was prepared by Basin Research Associates in March 2020. A full copy of the report is included as **Appendix D**. The archaeological review was conducted to determine if significant cultural resources under both NEPA and CEQA might be affected by the proposed Project. The USACE, as a federal permitting agency for issuance of a Clean Water Act Section 404 permit for the proposed Project, must complete the federal regulatory requirements for cultural resources pursuant to Section 106 of the National Historic Preservation Act (NHPA), which requires federal agencies with jurisdiction over a project to account for the potential effect on properties listed on or eligible for the National Register of Historic Places (NRHP).

The USACE is also responsible for consulting with the California State Historic Preservation Office (SHPO) on its identification and evaluation efforts, and potential effects of the Project on historic properties. In addition, the archaeological review was conducted to support NapaSan's requirement, as the CEQA lead agency, to determine the potential impacts of construction on both historical and archaeological resources and to mitigate any significant impacts on those resources that the proposed Project may have.

A prehistoric and historic site records and literature search was completed of the California Historical Resources Information System (CHRIS) / Northwest Information Center (NWIC) at Sonoma State University for a 0.25-mile radius from the Project alignment. Reference materials from the Bancroft Library at the University of California at Berkeley and Basin Research Associates were also consulted.

The Native American Heritage Commission (NAHC) was contacted for a review of the Sacred Lands Inventory. Letters and/or emails were sent to the five knowledgeable Native American individuals/organizations identified by the NAHC. **Section 3.18 Tribal Cultural Resources** provides an overview of the tribal outreach regarding the proposed Project.

On September 4-5, 2019, an archaeological survey of the Area of Potential Effects (APE) was conducted by Basin Research Associates. The APE for archaeological and historical resources includes areas where direct or indirect impacts may occur within the Project area. The APE is commensurate with the footprint of the proposed Project construction area and can be found in Figures 3-1, 3-2, and 3-3 of **Appendix D**.

a - c) Less than Significant with Mitigation Incorporated

The CHRIS/NWIC records search results found there were 35 cultural resources reports on file that included the APE and 26 additional reports on file within a 0.25-mile radius of the APE. Within 0.25-miles of the APE, 12 historic sites had been recorded, one of which had a prehistoric component. No prehistoric sites had been recorded in the APE, but two historic districts and four historic sites had been recorded: (1) a shipyard district; (2) a railroad district; (3) part of a railroad alignment; (4) a component of a water conveyance system; (5) a Napa Sanitation District building located within the SWRF; and (6) a Pacific Gas & Electric Company (PG&E) electrical transmission line. None of these six sites had been listed as eligible archaeological resources with the Napa County Archeological Determinations of Eligibility. The archival data for the APE suggested a moderate potential for prehistoric archaeological resources along the Napa River. The records search results are described in detail in **Appendix D**.

The archaeological field survey found a concrete culvert with a date of 1949 etched into the concrete and a box culvert that appeared to date to 1931. Overall, however, the archaeological field inventory observed no evidence of prehistoric or significant historic era archaeological resources in or adjacent to the APE. In the field evaluation, two of the recorded historic resources in the APE were evaluated as not eligible for inclusion in the NRHP and/or CRHR; one was evaluated as not significant in 1981 and has since been destroyed by road improvements; and one was evaluated as eligible for NRHP under only one criterion. A full description of the field survey methods and results can be found in **Appendix D**.

The *Historic Property Survey Report / Finding of Effect* concluded that the potential for exposing significant archaeological resources or affecting known historic buildings and structures within the APE is low. The proposed rehabilitation excavations would be in previously disturbed sediment over and immediately adjacent to the existing buried pipe. The temporary bypass pipelines would be installed on the surface along various paved and unpaved roads with minimal subsurface disturbance except for excavation at the three buried crossings. Other features associated with the above-ground discharge pipes would have minimal surface disturbance footprints with no planned excavation. The *Historic Property Survey Report / Finding of Effect* concluded a finding of "no adverse effect" for the proposed Project because it would not alter the characteristics of any identified historic property that may qualify for inclusion in the NRHP or diminish the integrity of the property's location, setting, design, materials, workmanship, feeling or association (i.e., the definition of an "effect" according to regulations implementing Section 106 [36 CFR Part 800.5(a)(1-2)]). The development of a formal Post-Review Discovery Plan was not recommended because the ground

disturbing excavation associated with the sewer rehabilitation would not affect any surface or subsurface archaeological deposits.

Although the potential for exposing significant archaeological resources or affecting known historic buildings and structures within the APE is low, there is potential for ground-disturbing activities to expose unrecorded cultural resources. The recommendations from the *Historic Survey Report / Finding of Effect* have been incorporated into **Mitigation Measures CUL-1** and **CUL-2**. With mitigation, impacts would be less than significant.

Mitigation Measures:

Mitigation Measure CUL-1 would be implemented to address the Project's potential to impact historical and archaeological resources. Mitigation Measures CUL-2 would be implemented to address possible impacts related to unanticipated discovery of human remains. Impacts are considered less than significant with mitigation incorporated.

Mitigation Measure CUL-1: Unanticipated Discovery of Cultural Resources

In the event of post-review discoveries of cultural resources (e.g., habitation sites, artifacts, various features, isolated artifacts, historic structural remains, trash pits, or human remains or bone, as defined in Footnote 5 of **Appendix D**), the construction Contractor shall temporarily suspend all earth-disturbing work within a 100-foot radius and notify the USACE so that any discoveries may be treated in accordance with 36 CFR Part 800.13(b). Work may not resume within the no-work radius until the USACE, through consultation as appropriate, determines that the discovery is either not eligible for the National Register of Historic Places or California Register of Historical Resources, or that the treatment measures have been completed to its satisfaction.

Mitigation Measure CUL-2: Unanticipated Discovery of Burials or Funerary Objects

The exposure and treatment of Native American burials and any associated or unassociated funerary objects discovered during soil-disturbing activity within the Project site shall comply with applicable State laws. This shall include immediately suspending all earth disturbing work within a 100-foot radius of the discovery. The construction Contractor shall immediately notify the appropriate county Coroner/Medical Examiner and NapaSan. In the event of the Coroner's determination that the human remains are Native American, notification of the Native American Heritage Commission, is required who shall appoint a Most Likely Descendant (MLD) (Public Resources Code Section 5097.98) who shall make recommendations for treatment. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

3.6 Energy

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

Discussion

The majority of electricity in Napa County is produced and delivered by the Pacific Gas and Electric Company (PG&E). PG&E provides electrical energy to residences and commercial, industrial, mining, and agricultural customers as well as transportation, communication, and utility service providers throughout the county. There are currently two major energy producing facilities in the County: the Coca Cola American Canyon facility which uses natural gas and is rated at 1.1 MW and the GRS American Canyon landfill gas facility which is rated at 1.6 MW (EPA 2018).

Marin Clean Energy (MCE), a community choice aggregation (CCA) program, is also a major electricity provider in Napa County and provides retail electric generation services and complementary energy programs to member communities which include Marin County, Napa County, Contra Costa County, and the City of Benicia. MCE provides service to more than 80 percent of electricity customers within its service area and is the default electric generation provider for new or relocated customers therein. MCE's current portfolio of energy sources, which are detailed in MCE's 2019 Integrated Resource Plan, includes suppliers from California, Washington and Oregon. MCE's procurement targets are 90 percent renewable energy by 2019 and 100 percent GHG-free renewable energy by 2022 (MCE 2018).

Presently, there are no suppliers of energy within Napa County. However, facilities in Napa County may receive electricity from other sources in MCE's energy portfolio. NapaSan's three facilities – the Administration Building, Collection System, and the Soscil Water Recycling Facility – are powered by electricity supplied by either PG&E or MCE.

Napa County's Draft Climate Action Plan (CAP) establishes GHG emissions reduction targets as compared to 2014 for the years 2020, 2030, and 2050. The targets are consistent with the State's emission reduction targets per AB 32 and SB 32. In 2014, the County of Napa findings from its baseline inventory concluded that transportation accounted for 26 percent of GHG emissions. Water- and wastewater-related GHG emissions would increase by 15 percent by 2030 from 2014 levels due to anticipated population growth. Water and wastewater measures in the CAP would indirectly reduce GHG emissions associated with general pumping and treatment activities.

a) Less than Significant Impact

Construction of the proposed Project using CIPP would involve construction-related fossil fuel consumption from operation of diesel-powered construction equipment, and fossil fuel consumption from material hauling, delivery, and worker vehicle trips. **Table 3-5** summarizes the anticipated construction fleet for the proposed Project. **Table 3-6**

summarizes the estimated material delivery and hauling truck trips, and worker vehicle trips for each type of construction activity. Sewer rehabilitation under spiral wound lining optional method would consume less energy in comparison to the CIPP because the extent of construction equipment and vehicle use would be less, and no bypass pumping system would be required. Therefore, information in Tables 3-5 and 3-6 represent the maximum case under the CIPP rehabilitation and bypass system.

Table 3-5: Construction Fleet Summary

Construction Phase	Duration (days)	Anticipated Fleet	Usage (hours/day)
Bypass pipeline and pump installation	10	Truck-mounted crane (1), flat-bed delivery trucks (4), excavator (1), backhoe (1), grader (1), scraper (1), compactor (1), HDPE pipe fusion machine (2), diesel generators (2), skid-mounted diesel pumps (12), and skid-mounted electric pumps (4).	8
Sewer cleaning and CIPP lining	106	Combination vactor/jetter trucks (2), end dump truck (1), CCTV van (1), CIPP resin tanker truck (1), trailer with CIPP felt liner (1), pumping system to inject CIPP resin into the felt liner (1), boiler (1), diesel generators (2), water tanker truck (1), compressor (1), truck-mounted crane (1), flat-bed delivery trucks (4), excavator (1), backhoe (1), grader (1), scraper (1), compactor (1), end dump truck (1), forklift (1), concrete truck (1).	8
Bypass pipeline and pump disassembly and site restoration	10	Truck-mounted crane (1), flat-bed delivery trucks (4), bottom dump truck (1), grader (1), scraper (1), compactor (1), and paver and roller (1).	8
Sources: Project-specific information provided by design engineers and duration based on total construction timeframe of one year. See <i>Section 2 Project Description</i> . CalEEMod Version 2016.3.2; see Appendix A for model output. When project-specific equipment not available in CalEEMod, alternate construction equipment selected based on similar horsepower.			

Table 3-6: Construction Trip Summary

Construction Phase	Duration (days)	Daily Worker Vehicle Trips (10.8 miles each)	Daily Vendor Trips (6.2 miles each)	Total Hauling Truck Trips ¹
Bypass pipeline and pump installation	10	10	2	0
Sewer cleaning	30	10	2	10 (230 miles)
CIPP lining	76	10	2	42 (20 miles)
Bypass pipeline and pump disassembly and site restoration	10	10	2	8 (20 miles)
<p>1. A hauling truck trip only accounts for movement of dirt/sediments to and from Project site. Equipment hauling is captured in the "Daily Vendor Trips" column.</p> <p>Sources: Project-specific information provided by design engineers; see <i>Section 2 Project Description</i>. CalEEMod Version 2016.3.2; see Appendix A for model output.</p>				

The proposed Project under CIPP would implement typical construction practices such as trenching and repaving. As shown in **Table 3-5** and **Table 3-6**, the Project would not require unusual or excessive construction equipment or practices that would result in wasteful, inefficient, or unnecessary consumption of energy compared to projects of similar type and size. In addition, the construction fleet contracted for the proposed Project would be required to comply with the CARB In-Use Off-Road Diesel-Fueled Fleets Regulations, which would limit vehicle idling time to five minutes, restrict adding vehicles to construction fleets with older-tier engines, and establish a schedule for retiring older, less fuel-efficient engines from the construction fleet. As such, construction of the proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy during construction and impacts would be less than significant.

The proposed Project would have minimal daily operational energy demand associated with fossil fuels consumed for maintenance activities, including regular inspection trips (see *Section 2 Project Description*). The rehabilitated trunk sewer would not require modifications to existing O&M practices. Once the Project is installed, it would not have a substantial demand for electricity or natural gas because the trunk sewer is gravity-fed in accordance with NapaSan's existing master plans. Therefore, impacts would be less than significant.

b) Less than Significant Impact

The County of Napa's Draft CAP (County 2019) focuses on reducing energy demand and GHG emissions, that result from building energy use and transportation. Operation of the proposed Project would not involve new vehicle trips or land use changes that would result in an increase in vehicle trips or vehicle miles travelled. The Draft CAP includes measures to reduce transportation GHG emissions by implementing the use of renewable diesel, other alternative fuels, or zero-emission vehicles for all construction activity. The proposed Project would not interfere with existing County or regional programs intended to reduce energy and improve water use efficiency. Currently, inflow and infiltration are entering the 66-inch trunk sewer and manholes through defective pipe joints, pipe cracks, and defective manhole-to-pipe connections along portions of the alignment. The proposed Project would add approximately 50 years of useful life to the existing trunk sewer. It would not result in GHG emissions higher than the BAAQMD significance screening thresholds and it would support Napa County's CAP goal of reducing GHG emissions county-wide by minimizing future repair activity and deferring construction of a replacement trunk sewer (see further analysis in *Section 3.8 Greenhouse Gas Emissions*). Therefore, the proposed Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Impacts would be less than significant, and no mitigation would be required.

Mitigation Measures: None required or recommended.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a) Less than Significant

a-i) The proposed Project site is located one mile north of the Green Valley Fault, an Alquist-Priolo Fault Zone that runs from the northern portion of the City of American Canyon, northward through the Napa County airport property (Napa County General Plan Figure SAF-1 [County of Napa 2009]). The proposed Project would not, itself, be located on a fault zone and, therefore, would not be at risk of loss from rupture of a fault. Therefore, impacts would be less than significant.

a-ii) In the event of an earthquake on a local or regional fault, the Project would be subjected to strong seismic ground shaking. The intensity of ground shaking would depend upon the magnitude of the earthquake, distance to the epicenter, and the geology of the area between the epicenter and the Project site. The geology of the soil underling the proposed Project area is surficial deposits, which tend to be weak, soft, loose, and susceptible to erosion. As mentioned in “a-i,” the closest fault is the Green Valley Fault located one-mile south of the Project area. Another branch of the Green Valley Fault is located six-miles east of the proposed Project area (County of Napa 2009). Given the proximity to local and regional fault lines, and weak underlying geology, the risk of loss from ground shaking could be significant. The Project would be designed in conformance with seismic engineering standards to reduce potential damage in the event of ground shaking. In addition, because it would rehabilitate an existing trunk sewer, it would not bring additional people to the area or structures that people would occupy. Therefore, the proposed Project would not directly or indirectly result in substantial adverse effects, including the risk of loss, injury, or death due to seismic ground shaking, and impacts would be less than significant.

a-iii) The risk of seismic-related ground failure, including liquefaction, tends to be higher in alluvial valleys and estuarine areas (County of Napa 2007). As shown in Figure 4.10-3 of the Napa County General Plan EIR (County of Napa 2007), the proposed Project area is located in an area of “Very Low” to “High” liquefaction susceptibility. The EIR goes on to say, “the largest contiguous area within the County where liquefaction failures could occur is within the loose saturated estuarine deposits along the Napa River, south of the City of Napa” (County of Napa 2007). Therefore, in a seismic event, the proposed Project could be at risk of loss due to liquefaction of surrounding soils. However, the Project would not bring additional people or structures to the area. Therefore, the proposed Project would not directly or indirectly result in substantial adverse effects, including the risk of loss, injury, or death due to seismic ground shaking and impacts would be less than significant.

a-iv) Landslide risk is higher in areas with steep slopes and unstable soils, but can also be exacerbated by seismic activity or heavy rains. As a trunk sewer rehabilitation project, the Project would not bring additional people or structures to the area. Furthermore, it would be located on terrain that has minimal-to-no slope. Impacts would be less than significant.

b) Less than Significant

The proposed Project would involve minimal soil erosion associated with trenching at the roadway and driveway crossings, and at the manhole rehabilitation and replacement sites. Construction of the proposed Project would include BMPs as specified in the Project SWPPP to control wind or water erosion of exposed soils. Following construction, surfaces would be restored to pre-construction conditions. With implementation of the standard construction BMPs, the potential for soil erosion during proposed Project construction would be less than significant.

c-d) Less than Significant

The geology of the soil underling the proposed Project area is surficial deposits, which tend to be weak, soft, loose, and susceptible to erosion. According to the Napa County General Plan EIR, areas at risk of lateral spreading include alluvial areas adjacent to open stream channels where a bank or terrace face exists (County of Napa 2007).

Section 18.108.060 of the County Code establishes standards to minimize the risks associated with project development in areas characterized by unstable soils. Expansive soils tend to occur in lower elevations of the County

near Yountville and the City of Napa. The rehabilitation of the existing 66-inch trunk sewer, which has been in place for over 50 years, is not expected to be affected by expansive soils such that there could be substantial direct or indirect effects to life or property. Additionally, the Project area is not characterized by steep slopes and would not be expected to result in a landslide. Impacts associated with unstable soils would be less than significant.

e) No Impact

The Project would not involve the use of septic tanks or other alternative wastewater disposal systems. No impact related to soil capability to support sewer systems would occur.

f) Less than Significant

Paleontological resources are generally associated with soils that are older than 10,000 years. The proposed Project is underlain by alluvial and surficial deposits. These relatively young sedimentary deposits are generally too young to contain fossilized material. In addition, trenching would reach depths of up to six feet below the ground surface for the bypass pipeline which is not a depth where sensitive paleontological resources would be expected to occur. Construction of the new manhole would require excavation to a depth of up to 21 feet; however, the site has already been highly disturbed from installation of the existing 66-inch trunk sewer and other adjacent underground utilities in this area. Therefore, the potential for the project to impact paleontological resources is low, and impacts to paleontological resources would be less than significant.

Mitigation Measures: None required or recommended.

3.8 Greenhouse Gas Emissions

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
Would the Project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Pollutants that are known to increase the greenhouse effect in the earth's atmosphere, thereby adding to global climate change impacts, are referred to as greenhouse gases (GHGs). A number of pollutants have been identified as GHGs. The State of California definition of GHGs in the Health & Safety Code, Section 38505(g) includes carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Some GHGs, such as CO₂, occur naturally and are emitted into the atmosphere through natural processes. Water vapor is a GHG; however, it is short lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. Other GHGs (e.g., fluorinated gases) are created and emitted solely through

human activities. The most common GHGs that result from human activity are carbon dioxide, followed by methane and nitrous oxide.

The Global Warming Potential (GWP) measures how much energy the emissions of one ton of a gas will absorb over a given period of time, relative to the emissions of one ton of CO₂. “Carbon dioxide equivalent” (CO₂e) is the amount of GHG emitted multiplied by its GWP. CO₂ has a 100-year GWP of one; CH₄ has a GWP of 25; and N₂O has a GWP of 298.

Executive Order (EO) S-3-05 in 2005 set GHG emission reduction targets: reduce GHG emissions to 2000 levels by 2010; reduce GHG emissions to 1990 levels by 2020; and reduce GHG emissions to 80 percent below 1990 levels by 2050. SB 32, passed in 2016, required that CARB, in its next update to the AB 32 Scoping Plan, “ensure that statewide GHG emissions are reduced to at least 40 percent below the statewide GHG emissions limit no later than December 31, 2030.” EO B-55 set a GHG emission reduction target for California to be carbon neutral by 2045.

CARB adopted the *Scoping Plan* in December 2008 and a *Scoping Plan Update* in December 2017. The *Scoping Plan* contains the strategies California will implement to achieve reduction of 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. In the *Scoping Plan*, “CARB recommends that lead agencies prioritize onsite design features that reduce emissions, especially from vehicle miles travelled (VMT), and direct investments in GHG reductions within the project’s region that contribute potential air quality, health, and economic co-benefits locally.”

a) Less than Significant Impact

The Project would generate GHG emissions through the burning of fossil fuels or other emissions of GHGs, as a result of both construction and operations activities. Direct emissions would result from fuels burned to power construction equipment and worker and heavy construction equipment trips to and from the site. Construction is anticipated to last approximately seven months. Once operational, the Project pipelines would require routine maintenance. However, as explained in *Section 2 Project Description*, NapaSan would continue to operate its wastewater system with no operational modifications. The proposed Project would not result in a net change in O&M activities and GHG emissions from mobile sources would, therefore, be negligible. Once the Project is installed, it would not have a substantial demand for electricity or natural gas because the trunk sewer is gravity-fed in accordance with NapaSan’s existing master plans. Therefore, long-term indirect GHG emissions from the Project’s energy supply would be negligible.

GHG emissions were estimated using CalEEMod version 2016.3.2, consistent with the methodology and project-specific assumptions used to quantify air pollutant emissions (see *Section 3.3*). The GHG emissions analyzed herein do not account for emissions from existing energy consumption associated with the current NapaSan operations. BAAQMD does not have an adopted numerical Threshold of Significance for construction-related GHG emissions. For the purposes of quantifying construction-related GHG emissions, this analysis considers BAAQMD’s operational-related threshold. This is consistent with State-wide GHG emission reduction goals set forth by AB 32. Construction emissions were amortized over the life of the Project, defined as 50 years, added to the operational emissions, and compared to the operational-related threshold (BAAQMD 2017b). Annualized GHG emissions for the Project using CIPP with bypass system are summarized in **Table 3-7**. Sewer rehabilitation under spiral wound lining optional method would have fewer annualized GHG emissions because the extent of construction equipment and vehicle use would be less compared with CIPP with bypass system. Therefore, the GHG emissions in **Table 3-7** represent the maximum case under the CIPP rehabilitation with bypass system.

Table 3-7: Proposed Project GHG Emissions (MTCO₂e/year)

Source	MTCO ₂ e
Energy	<i>No net increase</i>
Mobile	<i>No net increase</i>
Area	<i>No net increase</i>
Amortized Unmitigated Construction Emissions	13
Total	13
<i>BAAQMD Operational-Related Threshold</i>	<i>1,100</i>
Significant?	No
MTCO ₂ e = metric tons of carbon dioxide equivalent	

The results of the inventory for construction and operational emissions, as shown in the CalEEMod output tables in Appendix A, are presented in **Table 3-7**. GHG emissions from the Project would be below the BAAQMD operational-related threshold of significance. The Project would not generate GHG emissions, directly or indirectly, that may have a significant impact on the environment and no mitigation would be necessary.

b) Less than Significant Impact

BAAQMD's *2017 Clean Air Plan* focuses on protecting public health and protecting the climate. The *2017 Clean Air Plan* lays the foundation for long-term efforts to reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. These targets are consistent with targets set by the State. The proposed Project would not involve an increase in new vehicle trips or land use changes that would result in an increase in vehicle trips, such as urban sprawl. The *2017 Clean Air Plan's* proposed control strategy is an integrated, multi-pollutant strategy to reduce GHGs among other air pollutants that span nine economic sectors including water, energy, and waste management.

Napa County's CAP establishes a GHG emissions reductions targets as compared to 2014 for the years 2020, 2030, and 2050. The targets are consistent with the State's emission reduction targets per AB 32 and SB 32. In 2014, the County of Napa findings from its baseline inventory concluded that transportation accounted for 26 percent of GHG emissions. Water and wastewater-related GHG emissions would increase by 15 percent by 2030 from 2014 levels due to anticipated population growth. The proposed Project would not interfere with existing County or regional programs intended to reduce energy and improve wastewater management efficiency. It would not result in emissions higher than the BAAQMD significance screening thresholds. It would also support Napa County's CAP goal of reducing GHG emissions to 40 percent below 2014 levels by 2030 by remaining well below defined thresholds of significance. The proposed Project would not, therefore, conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant, and no mitigation would be required.

Mitigation Measures: None required or recommended.

3.9 Hazards and Hazardous Materials

Would the Project:	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Hazardous materials common to agricultural and light industrial land uses are currently in use in the vicinity of the Project. Transport of hazardous materials occurs along State Routes 12/29 and 121 and the Napa Vallejo Highway. Through natural events, system failures, and accidents (spills), hazardous materials can become a risk to the environment and human health. Numerous local, State and federal laws exist to regulate the storage, use, handling and transportation of hazardous materials. To increase public safety and awareness of hazardous materials exposure risk, businesses and entities that handle, store, transport, or use hazardous materials are required to file reports with appropriate authorities and maintain emergency response plans in the event of a hazardous materials release.

a) Less than Significant Impact

Construction of the proposed Project would temporarily increase the routine transport and use of hazardous materials commonly used in construction activities. Limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluids, paint, and other similar materials, would be brought into the Project area, used, and stored during rehabilitation of the 66-inch trunk sewer and installation and operation of the bypass system under CIPP method. The construction Contractor would be required to comply with applicable standards, including Division 20, Chapter 6.5, Article 6.5, Article 6.6, and Article 13 of the California Health and Safety Code and Title 40 CFR Part 263, that regulate the transport, use, storage, and disposal of hazardous materials.

As described in *Section 2.3 Proposed Project Description*, accumulated sediment from the bottom of the trunk sewer would be collected during the pre-CIPP pipeline cleaning process and disposed of by the Contractor. NapaSan would complete chemical composition testing on sediment samples prior to the start of construction to determine the hazardous waste classification and potential disposal options. If hazardous, the sediment would likely be disposed of at the Class II landfill in the Kettleman Hills. Information about the sediment's chemical composition, hazardous waste classification and disposal options would be provided in the contract documents, and the Contractor would be required to comply with applicable standards, including Division 20, Chapter 6.5, Article 6.5, Article 6.6, and Article 13 of the California Health and Safety Code and Title 40 CFR Part 263, that regulate the transport, use, storage, and disposal of hazardous materials. Therefore, impacts would be less than significant.

Upon completion of the rehabilitation work, the proposed Project would not result in additional operations activities requiring routine transport, use or disposal of hazardous materials. The transportation and routine use of temporary, construction-related hazardous materials would not represent a significant hazard to the public or environment due to compliance with existing standards. Therefore, the impact would be less than significant, and no mitigation would be required.

b) Less than Significant with Mitigation Incorporated

The sewer rehabilitation project would not create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials used in construction, which include diesel fuel and minor amounts of paints, fuels, solvents and glues. The potential exists for accidents to occur during construction activities, which would result in the release of hazardous materials into the environment. **Mitigation Measure HAZ-1** requires the Contractor to develop and implement a Hazardous Materials Management and Spill Prevention and Control Plan that includes project-specific contingencies. With **Mitigation Measure HAZ-1**, impacts resulting from potential hazardous materials-related accidents would be reduced to a less than significant level.

The cure water associated with CIPP lining will contain styrene and will be temporarily stored in the existing SWRF detention pond just south of the Influent Pump Station, allowing the styrene to biodegrade prior to introducing the cure water to the treatment system. This detention pond is a temporary storage facility for water to be fed into the treatment stream. The CIPP cure water would be released from the cured pipe into the 66-inch trunk sewer and flow toward the SWRF, but would be diverted to the detention pond before reaching the SWRF. Once released in the detention pond, NapaSan would determine when to introduce the cure water into the SWRF's treatment process. A limited potential exists for accidental release of cure water containing styrene into the environment. The Hazardous Materials Management and Spill Prevention and Control Plan and contract documents would include measures that the Contractor would be required to implement to prevent and control spill of styrene-contaminated cure water. Therefore, impacts would be less than significant.

c) No Impact

The Project site is not located within 0.25-miles of an existing or proposed school. The closest elementary school is Irene M. Snow Elementary located over 1.5-miles northwest of the proposed Project.

d) Less than Significant with Mitigation Incorporated

A regulatory records search was performed for the Project area using the SWRCB GeoTracker database (SWRCB 2015) and the California Department of Toxic Substances Control (DTSC) EnviroStor database (DTSC 2019). These lists are a compilation of information from various sources listing potential and confirmed hazardous waste and hazardous substances sites in California. The SWRCB GeoTracker database lists one permitted underground storage tank located at 2531 Napa Valley Corporate Drive, 300-feet east of the proposed temporary bypass discharge pipeline alignment option that would stay on private and public roadways and easements. There are no active hazardous materials cleanup sites in proximity to the proposed Project listed on GeoTracker; however, the former Napa Pipe property at 1025 Kaiser Road is listed as a leaking underground storage tank cleanup site for release of solvents, with a cleanup status of “closed.” A Closure/No Further Action Letter was issued by the San Francisco Bay RWQCB on July 21, 2009.

On the EnviroStor database, there are no active hazardous materials cleanup sites; the closest active site is a former dry cleaning site at 860 Kaiser Road, over 1,000-feet east of the proposed bypass alignment option that would stay on private and public roadways and easements, that is in voluntary cleanup status for volatile organics. The former Napa Pipe property at 1025 Kaiser Road is identified on the EnviroStor database as a tiered permit/historical site that was referred by DTSC to San Francisco Bay RWQCB as of January 1, 1990. The most recent activity identified on the EnviroStor database is from May 2014 and states that DTSC concluded no further federal assessment under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (Superfund program) was necessary as the San Francisco Bay RWQCB is overseeing environmental investigation and remediation at the site. However, as mentioned above, the GeoTracker database identifies the Napa Pipe property cleanup site as “closed” status by the San Francisco Bay RWQCB.

Although the former Napa Pipe property is no longer an active hazardous waste site, the proposed Project would still take place on a site which is included on a list of hazardous materials sites and, as a result, could create a potential hazard to the public or the environment. Construction would require excavation at the manhole replacement sites on the former Napa Pipe property. Subsurface soils excavated during construction could still contain residual hazardous substances from historical contamination on the former Napa Pipe property. In the event that contaminated soil or groundwater is encountered during excavation, implementation of **Mitigation Measure HAZ-2**, which identifies Contaminated Soil and Groundwater Contingency Procedures, would reduce impacts to less than significant.

e) No Impact

There is one airport within the vicinity of the proposed Project, the Napa County Airport, which is located approximately one mile south of the proposed Project. The proposed Project is outside of the noise contours of the Napa County Airport shown in Figure CC-1 of the Napa County General Plan (County of Napa 2013). Therefore, it would not result in hazards or expose workers to excessive aircraft noise levels and there would be no impact.

f) Less than Significant with Mitigation Incorporated

As discussed in *Section 3.20 Wildfire*, construction of the proposed Project would add worker vehicles and heavy construction equipment to public roadways, as well as to private and public land. Potential staging areas include vacant private and public land. The Project would temporarily involve segments of closed traffic lanes. Therefore, Project construction would temporarily block access to some roadways and driveways that are currently used by emergency response vehicles or in emergency evacuations. **Mitigation Measure TRA-1** addresses how NapaSan would

communicate with emergency response agencies to develop emergency access strategies. Impacts are considered less than significant with mitigation incorporated.

Once operational, the rehabilitated trunk sewer and manholes would operate similarly to existing conditions. Ground surfaces impacted by construction would be restored to pre-construction conditions. Long-term, the proposed Project would not physically impair or otherwise interfere with emergency response or evacuation. Impacts would be less than significant.

g) Less than Significant Impact

As discussed in *Section 3.20 Wildfire*, the proposed Project is located near, but not within, a fire hazard zone. The Project area is generally level and is not characterized by factors, such as slope or prevailing winds that would exacerbate wildfire risks. The proposed Project does not require installation or maintenance of associated infrastructure such as roads, fuel breaks, emergency water sources, power lines or other utilities that may exacerbate fire risk. Therefore, it would not result in direct or indirect exposure of people or structures to a significant risk of loss, injury or death involving wildland fires. Impacts would be less than significant.

Mitigation Measures:

To minimize impacts associated with reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, the Project would implement **Mitigation Measure HAZ-1**. **Mitigation Measure HAZ-2** would be implemented to address risks associated with known hazardous materials sites. In addition, **Mitigation Measure TRA-1** would minimize risks associated with emergency vehicle access or emergency routes. Impacts are considered less than significant with mitigation incorporated.

Mitigation Measure HAZ-1: Hazardous Materials Management and Spill Prevention and Control Plan

Before construction begins, the construction Contractor shall submit to NapaSan a Hazardous Materials Management and Spill Prevention and Control Plan (Plan) that includes a project-specific contingency plan for hazardous materials and waste operations. The Plan will be applicable to construction activities and should establish policies and procedures according to applicable codes and regulations including, but not limited to, the California Building and Fire Codes, and federal and California Occupational Safety and Health Administration (OSHA) regulations. Elements of the Plan will include, but not be limited to, the following:

- A discussion of hazardous materials management, including delineation of hazardous material storage areas, access and egress routes, waterways, emergency assembly areas, and temporary hazardous waste storage areas;
- Notification and documentation of procedures; and
- Spill control and countermeasures, including employee spill prevention/response training.

Mitigation Measure HAZ-2: Contaminated Soil or Groundwater Contingency Procedures

NapaSan shall coordinate construction with the owner of the former Napa Pipe property to ensure construction activities are consistent with closed remediation sites. NapaSan shall require its construction Contractor to follow the procedures below in the event that contaminated soil or groundwater is encountered (either visually or through odor detection) during excavation activities:

- Stop work in areas of contamination;
- Notify the San Francisco Bay Regional Water Quality Control Board;
- Contain the areas of contamination;

- Perform appropriate clean up procedures; and
- Segregate, profile, and dispose of contaminated soil. Required disposal method shall depend on the type and concentration of contamination identified. Any site investigation or remediation shall be performed in accordance with applicable regulations.

Refer to *Section 3.17 Transportation* for **Mitigation Measure TRA-1**.

3.10 Hydrology and Water Quality

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

Discussion

The Project is located within the watershed of the Napa River. The Napa River flows approximately 55-miles from Mount Saint Helena to San Pablo Bay and drains a watershed of about 426-square miles. The existing 66-inch trunk sewer is located just east of the Napa River as shown on Figure 2-1. Other water resources in the Project area include the Bedford Slough and Soscol Creek which are tributary to the Napa River.

The RWQCB's has assigned beneficial uses to surface waters in the *Water Quality Control Plan for the San Francisco Bay Region (Basin Plan)*. Beneficial uses for surface waters in the Project area include:

- *Napa River*: Agricultural Supply (AGR); Municipal and Domestic Supply (MUN); Groundwater Recharge (GWR); Commercial, Sport Fishing (COMM); Cold Freshwater Habitat (COLD); Fish Migration (MIGR); Preservation of Rare and Endangered Species (RARE); Fish Spawning (SPWN); Warm Freshwater Habitat (WARM); Wildlife Habitat (WILD); Contact Recreation (REC-1), Non-Contact Recreation (REC-2) and Navigation (NAV).
- *Bedford Slough*: Estuarine Habitat (EST); WILD; REC-1; REC-2
- *Soscol Creek*: COLD; MIGR; RARE; SPWN; WARM; WILD; REC-1; REC-2

The Basin Plan sets narrative and numeric water quality objectives to maintain water quality standards and protect the Beneficial Uses of waters in the region. The Napa River is listed on the USEPA's Clean Water Act (CWA) Section 303(d) List as impaired for nutrients, pathogens and sediment, with sources primarily related to agriculture and on-site septic tanks. To address these water quality impairments, Total Daily Maximum Loads (TMDLs) for pathogens and sediment were adopted by the SWRCB and USEPA in 2007 and 2009, respectively, and are being implemented through programs of the RWQCB. According to the RWQCB, the nutrient impairment is under evaluation for possibly delisting from the Section 303 (d) list.

The Napa River is prone to seasonal flooding from November through April each year. According to the Napa County Flood Control and Water Conservation District, there have been 21 serious floods on the Napa River since 1862. The most recent serious floods occurred in 2005, 1997, 1995, and 1986, causing widespread damage and costly repair. To address flooding of the Napa River, federal, state, local governments and local community and environmental groups came together over several years to develop the Napa River/Napa Creek Flood Protection Project which includes improvements to six-miles of the Napa River, upstream of the proposed Project area. Elements of the Napa River/Napa Creek Flood Protection Project include bank terracing, bridge replacements, bypass channels, culverts, floodwalls, and levees as well as more than 600-acres of restored wetlands.

a) Less Than Significant

The proposed 66-inch trunk sewer rehabilitation project, located on the east side of the Napa River, would require land disturbance for: 1) replacement of manholes; 2) construction of one new manhole; 3) shallow trench excavation for driveway and street crossings; and 4) potential crossing of the Bedford Slough. These activities could generate sediment that could be transported off-site in storm water discharges, if uncontrolled. However, because Project construction activities will result in land disturbance of over one-acre, the Project must comply with the California General Construction Activities Storm Water Discharge Permit (Construction General Permit) (Order 2009-0009-DWQ). Under the Construction General Permit, the Contractor will be required to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) that contains Best Management Practices (BMPs) to control sediment and

other construction-related pollutants in storm water discharges from the construction site. The Construction General Permit also requires regular inspections, storm water monitoring, and annual reporting to ensure BMPs are being implemented properly and no sediment or other materials are discharging off-site to the Napa River, Bedford Slough and Soscol Creek.

Dewatered groundwater during excavation, such as during replacement of the manholes, would be disposed of into the sewer system and no RWQCB permit would be required.

During the sewer rehabilitation work under the CIPP method, the process cure water would be discharged through the 66-inch trunk sewer to the SWRF detention pond where the cure water containing low concentrations of styrene would biodegrade prior to entering the treatment system. No changes to SWRF processes would be required and no changes to the water quality of wastewater discharges from the SWRF are anticipated to occur. NapaSan would continue to meet the requirements of its Waste Discharge Requirements/NPDES discharge permit.

The Project could require a CWA Section 404 Permit from the USACE and a RWQCB Section 401 Water Quality Certification for impacts to jurisdictional waters and wetlands of the United States. A more detailed discussion of the wetland impacts and permit requirements is provided in *Section 3.4.c Biological Resources*.

Compliance with the required permits discussed above would ensure impacts to water quality would be less than significant.

b) Less Than Significant

The Project is underlain by the Napa-Sonoma Valley Groundwater Basin (DWR 2-002.) within Subbasin 2-002.01 (Napa Valley) and Subbasin 2-002.03 (Napa-Sonoma Lowlands). These basins are not in critical overdraft (California Department of Water Resources DWR Bulletin 118). In response to the 2014 Sustainable Groundwater Management Act (SGMA), Napa County prepared the *Basin Analysis Report For The Napa Valley Subbasin* (Luhdorff & Scalmanini 2016) which demonstrated that the subbasin has operated within its sustainable yield over a period of more than 20 years and groundwater levels remained stable even during drought conditions (from 2012 through 2015). The Basin Analysis Report covers the entire Napa Valley Subbasin, which has been designated by the State as a medium priority basin and is subject to specific requirements under SGMA. Napa County continues to implement a number of established management actions, including land use planning regulations and groundwater management ordinances, as well as education and outreach programs and projects to help achieve the County's sustainability goal for the basin.

Rehabilitation of the existing 66-inch trunk sewer would not require the use of groundwater for either construction or operation. Some minor temporary groundwater dewatering would be required during excavations, such as during manhole replacements, but this would be temporary and would not affect existing the underlying groundwater basin. Upon completion of construction, the Project would result in a negligible change in impervious surface area due to the addition of one new manhole, and would not change groundwater recharge. Therefore, the Project would have a less than significant impact on sustainable groundwater management.

c) Less Than Significant

The proposed Project involves rehabilitation of the existing 66-inch trunk sewer with a CIPP liner and the above-ground placement of temporary bypass pipelines (except at driveways and road crossings). The Project would be conducted within existing rights-of-way along public and private roads. Alternative alignments for the temporary bypass pipeline involve a potential crossing of the Bedford Slough and the Union Pacific/California Northern Railroad tracks using existing bridges or culverts, as well as possible placement along the road crossing of Soscol Creek.

The Project would not result in substantial changes to the existing drainage pattern in the Project area nor require alteration of Soscol Creek or Bedford Slough. Potential erosion and siltation during installation of the bypass pipeline, pumps, and manhole replacement/rehabilitation would be controlled with implementation of BMPs included in the

Project's SWPPP (as discussed in Section 3.10.a). The Project would create a negligible increase in impervious surface area due to the addition of one new manhole and therefore would not change the rate or amount of surface runoff, nor would it affect the capacity of the existing or planned storm water drainage systems. Since the Project is not a new land use development with substantial new impervious surface area, it would not be a source of new polluted runoff; however, during temporary construction, construction-related pollutants, such as sediment, would be controlled by BMPs. The temporary bypass pipelines and pumps placed above ground would not be expected to impede or redirect flood flows, primarily because Project work is planned outside the rainy season when no significant storm events or flooding would be expected. Overall, drainage-related impacts would be less than significant.

d) Less Than Significant

The Project site is not located within the tidal zones of the Pacific Ocean, San Francisco Bay or San Pablo Bay. According to the California Department of Conservation's (CDC) Napa County Tsunami Inundation Map, Cuttings Wharf Quadrangle (CDC 2009), the Project site is not located in a tsunami inundation area. Geologic-induced seiche events have not been documented in the San Francisco Bay region. Therefore, there would be no risk of release of pollutants due to inundation from tsunami and seiche.

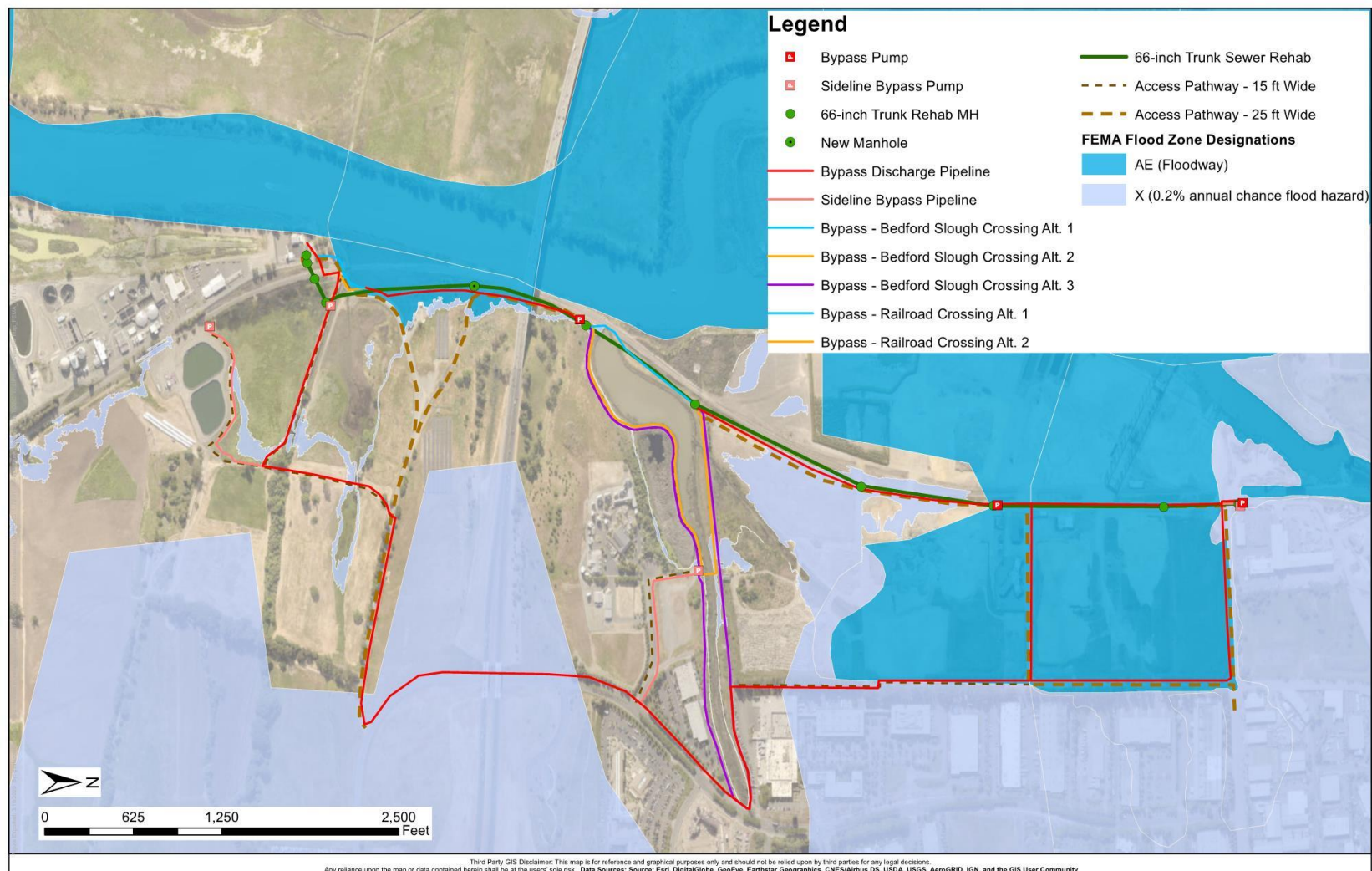
However portions of the 66-inch trunk sewer and the sewer bypass pipeline alternatives are located within Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas Zone AE (100 year flood zone) as well as within Zone X (shaded), which is a moderate flood hazard area (between the limits of the 100 year flood and 500 year flood) (see **Figure 3-3, FEMA Flood Zones**). The sewer rehabilitation work is proposed to take place between mid-May and mid-October which is outside of the rainy season, and therefore not expected to create drainage or water quality impacts during flooding. Also, the Contractor is required to protect the bypass equipment from damage and spills during operation as part of required Construction Best Management Practices described in Section 2.4.6. Additionally, the Contractor would be required to implement construction site BMPs to control erosion and sediment in storm water discharges from active construction areas, and exposed manholes would be covered during a storm. Therefore, the risk of release of pollutants during a flood event would be less than significant.

e) Less Than Significant

See discussion under 3.10 (a) and (b).

Mitigation Measures: None required or recommended.

Figure 3-3 FEMA Flood Zones



3.11 Land Use and Planning

Would the Project:	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The proposed Project area is located in the City of Napa and unincorporated Napa County. The existing 66-inch trunk sewer alignment to be rehabilitated and the proposed bypass pipeline alignment options cross the former Napa Pipe property, Bedford Slough and Soscol Creek, the Union Pacific/California Northern Railroad, and are located next to the Napa River. The Project area is generally characterized by land designated for light industrial uses and industrial parks, and the former Napa Pipe property which is zoned for a future mixed-use/industrial/business park development (City of Napa 2013; County of Napa 2013a).

The applicable plan, policy, or regulations are the City of Napa General Plan (City of Napa 2015) and the Napa County General Plan (County of Napa 2013). Two of the purposes identified in the City of Napa General Plan relate to avoiding or mitigating an environmental effect, namely, the City of Napa General Plan, “defines the community’s environmental, social, and economic goals,” and “fosters coordination of community development and environmental protection activities among local, regional, state, and federal agencies.” Similarly, the Napa County General Plan serves as a broad planning framework that states County goals, policies, objectives, and action items. Many of the General Plan goals, particularly in the Conservation Element, relate to avoiding or mitigating an environmental effect.

a) No Impact

The proposed Project area is characterized by light industrial land uses, and the former Napa Pipe property. There are no established residential or commercial communities in the Project area. The proposed Project would temporarily affect adjacent land uses through increased dust, noise, and traffic, but impacts would cease upon completion of construction and would not permanently affect the existing surrounding land uses. The proposed bypass pipeline alignment options would be placed underground at roadway and driveway crossings and would not result in a physical barrier within the existing community. No impacts would occur, and no mitigation would be required.

b) No Impact

The proposed Project would be installed within roadway rights-of-way and on public and private lands and would comply with the County of Napa’s and City of Napa’s land use policies and regulations. Surfaces impacted by construction would be restored to pre-construction conditions upon completion of the sewer rehabilitation work. Therefore, the proposed Project would be consistent with applicable land use plans, policies and regulations of agencies with jurisdiction over the proposed Project adopted for the purpose of avoiding or mitigating an environmental effect. No impacts would occur, and no mitigation would be required.

Mitigation Measures: None required or recommended.

3.12 Mineral Resources

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
Would the Project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a, b) No Impact

According to the City of Napa General Plan Housing Element Environmental Impact Report (City of Napa 2014), there are no mineral extraction operations or known deposits of minerals of State-wide or local importance (aggregate, oil, precious metals, etc.). According to the County of Napa General Plan Environmental Impact Report (County of Napa 2007), the only large active quarry is the Syar Quarry. The Syar Quarry is located approximately 1.5-miles northeast of the proposed Project area. The proposed Project involves rehabilitation of an existing trunk sewer and use of temporary sewer bypass pipelines, which would not permanently impact mineral deposits or recovery sites. There would be no impact and no mitigation would be required.

Mitigation Measures: None required or recommended.

3.13 Noise

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

- 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?

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Discussion

Noise is unwanted sound. Noise can come from mobile sources, such as cars, trains and aircraft, or from stationary sources, such as machinery, airports and construction sites. Noise can cause physical hearing impairment, but is also associated with human health problems related to stress and annoyance when it interferes with sleep, speech, recreation, and tasks demanding concentration. Noise can also interfere with wildlife, particularly avian species during their breeding and nesting seasons. Noise sensitive land uses, generally, are places where noise can interfere with how people and animals use the land. Churches, schools, and certain kinds of outdoor recreation are usually considered noise-sensitive, as are residential land uses where people sleep and study (County of Napa 2013). Avian habitats for nesting and breeding are also generally considered noise-sensitive.

The following noise terminology are adapted from the U.S. Department of Transportation Federal Highway Administration Construction Noise Handbook (FHWA 2006) and the U.S. Department of Transportation Federal Transit Administration Transit Noise and Vibration Impact Assessment Manual (FTA 2018):

- **A-Weighting.** A method used to account for changes in level sensitivity as a function of frequency. A-weighting de-emphasizes the high (6.3 kHz and above) and low (below 1 kHz) frequencies and emphasizes the frequencies between 1 kHz and 6.3 kHz, in an effort to simulate the relative response of the human ear.
- **Community Noise Equivalent Level (CNEL).** A 24-hour time-averaged sound exposure level adjusted for average, daytime sound source operations. The adjustment includes a 5-dB penalty for noise occurring between 7pm and 10pm and a 10-dB penalty for noise occurring between 10 pm and 7 am to account for humans' greater nighttime sensitivity to noise. The CNEL noise descriptor is used primarily in the State of California.
- **Day-Night Average Sound Level (DNL, denoted by the symbol, L_{dn}).** A 24-hour time-averaged sound exposure level, adjusted for average, daytime sound source operations. The adjustment includes a 10-dB penalty for noise occurring between 10pm and 7am to account for humans' greater nighttime sensitivity to noise.
- **Decibel (dB).** A unit of measure of sound level. Calculating the number of decibels involves measuring the sound pressure and comparing it to a sound pressure reference, the threshold of human hearing. A-weighted decibels are expressed as dBA or dB(A).
- **Equivalent Sound Level (L_{eq}).** A sound exposure level during a stated time interval. For example, $L_{eq(h)}$ represents the hourly equivalent sound level.
- **Ground Effect.** The change in sound level, either positive or negative, due to intervening ground between source and receiver. Ground effect is a function of ground characteristics, source-to-receiver geometry, and the spectral characteristics of the source. A commonly used rule-of-thumb for propagation over soft ground (e.g., grass) is that ground effects will account for about 1.5 dB per doubling of distance. However, this relationship tends to break down for distances greater than about 100 to 200 feet.

- **Line Source.** Multiple point sources moving in one direction, such as a continuous stream of roadway traffic. Sound levels measured from a line source tend to decrease at a rate of 3 dB per doubling of distance.
- **Noise Barrier.** The structure, or structure together with other material, that alters noise at a site.
- **Point Source.** Source that radiates sound. Sound levels measured from a point source tend to decrease at a rate of 6 dB per doubling of distance.
- **Ten-Percentile Exceeded Sound Level (L_{10}).** The sound level exceeded 10 percent of a specific time period. For example, from a 50-sample measurement period, the fifth (10 percent of 50 samples) highest sound level is the 10-percentile exceeded sound level. Other similar descriptors include L_{50} (the sound level exceeded 50 percent of a specific time period), L_{90} (the sound level exceeded 90 percent of a specific time period), etc.

Groundborne vibration occurs when construction equipment or vehicles excite the adjacent ground, creating vibration waves that propagate through the ground to nearby buildings, creating vibration effects that potentially interfere with activities (FTA 2018). Groundborne vibration is expressed in terms that reflect the response of humans, buildings and equipment to vibration. The following vibration terminology are adapted from the U.S. Department of Transportation Federal Transit Administration Transit Noise and Vibration Impact Assessment Manual (FTA 2018):

- **Vibration Decibels (VdB).** The vibration velocity level in decibel scale.
- **Peak Particle Velocity (PPV).** The peak signal value, positive or negative, of a measured vibration wave. Usually expressed in inches/second in the United States. PPV is often used in monitoring of construction vibration because it is related to the stresses that are experienced by buildings.
- **Root Mean Square (rms).** The rms is used to describe a smoothed vibration amplitude. Because of the way rms is calculated, it is always less than the PPV and is always positive. The rms amplitude is used to convey the magnitude of vibration felt by the human body, in inches/second.

Groundborne noise is noise generated by groundborne vibration. Groundborne noise occurs when vibration radiates through a building interior and creates a low-frequency sound, often described as a rumble. The annoyance potential of groundborne noise is typically characterized with the A-weighted sound level. Because groundborne noise is lower frequency and sounds louder than airborne noise at the same noise level, the impact thresholds for groundborne noise tend to be lower than would be the case for airborne noise (FTA 2018).

Existing, ambient noise conditions in Napa County are dominated by mobile sources, including automobile and truck traffic, and operations at Napa County Airport. Countywide, State routes 12, 29, 121, and 128, and Silverado Trail are sources of traffic noise. Stationary noise sources in Napa County consist of airports, construction sites, agricultural activities, and noise from commercial and industrial facilities (County of Napa 2013). Existing and forecasted ambient noise from roadways are documented in the Napa County General Plan (County of Napa 2013). In the area around the proposed Project site, roadway noise on State route 12/121 between Cuttings Warf Road and Stanley Road is forecasted to be 73 dBA L_{dn} in the year 2030 at a distance of 100-feet, and roadway noise on the Napa Vallejo Highway between State Route 12 and Kaiser Road is forecasted to be 76 dBA in the year 2030 at a distance of 100-feet.

Noise and/or vibration sensitive land uses in the vicinity of the proposed Project area include habitat around the Bedford Slough and Napa River. The land uses surrounding the proposed Project area are primarily light industrial; there are no schools or residences within the Project area. There is one church, located at 2557 Napa Valley Corporate Drive that has services on Saturday evening and Sunday morning (TFH 2019).

County Noise Standards

For industrial land uses, Napa County General Plan (County of Napa 2013) considers noise ranging up to 70 dBA L_{dn} “completely compatible,” noise ranging from 70-80 dBA L_{dn} “tentatively compatible,” noise ranging from 80-85 dBA L_{dn} “normally incompatible,” and noise exceeding 85 dBA L_{dn} “completely incompatible.” In addition, Napa County Code of Ordinances (Section 8.16.070) sets the exterior noise limit levels not to be exceeded more than 30-minutes in any hour at 75 dBA for industrial land uses.

Napa County Municipal Code section 8.16.080.B.2 limits construction noise at affected properties to the maximum noise levels shown in **Table 3-8**. Construction and demolition activities that would create a noise disturbance across a residential or commercial property line are prohibited between 7:00 p.m. and 7:00 a.m., except for emergency work of public service utilities or by variance issued by the appropriate authority.

Table 3-8: Napa County Maximum Noise Levels at Affected Property Lines (dBA)

	Residential	Commercial	Industrial
Daytime between 7:00 a.m. and 7:00 p.m.	75	80	85
Nighttime between 7:00 p.m. and 7:00 a.m.	60	65	70

City Noise Standards

The City of Napa General Plan Health & Safety element (City of Napa 2015) has land use compatibility standards for community noise environments. For industrial and utility land uses, noise ranging up to 75 dB CNEL/ L_{dn} is considered “normally acceptable,” noise ranging between 70 to 80 dB CNEL/ L_{dn} is considered “conditionally acceptable,” and noise ranging from 75 to 85 dB CNEL/ L_{dn} is considered “normally unacceptable.” The General Plan Health & Safety element includes a goal to, “protect Napa’s residents, workers, and visitors from the deleterious effects of noise” (Goal HS-9). The following policies are relevant to the proposed Project and are included in the City General Plan to accomplish that goal:

- The City shall use CEQA and the development review process to ensure that new development does not exceed City standards (Policy HS-9.2).
- The City shall respond to noise complaints by suggesting noise mitigation measures and using code enforcement procedures when necessary (Policy HS-9.8).
- When feasible and appropriate, the City shall limit construction activities to that portion of the day when the number of persons occupying a potential noise impact area is lowest (Policy HS-9.9).
- The City shall regulate construction in a manner that allows for efficient construction mobilization and activities, while also protecting noise sensitive land uses (Policy HS-9.11).
- The City shall evaluate and modify as necessary the City’s designated truck routes to minimize noise impacts for sensitive land uses (Policy HS-9.12).

City of Napa Municipal Code establishes the City’s noise standards, as follows. Noise control regulations related to construction apply to any construction activity, with the exception of necessary construction on behalf of a public agency (City of Napa Municipal Code Section 8.08.025.E).

- D. Construction activities throughout the entire duration of the project shall be limited to the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday. There will be no start-up of machines nor equipment prior to 8:00 a.m., Monday through Friday; no delivery of materials nor equipment prior to 7:30 a.m. nor past 5:00 p.m., Monday

through Friday; no cleaning of machines nor equipment past 6:00 p.m., Monday through Friday; no servicing of equipment past 6:45 p.m., Monday through Friday; and construction on weekends or legal holidays shall be limited to the hours of 8:00 a.m. to 4:00 p.m., unless a permit shall first have been secured from the City Manager, or designee. The City Manager, or designee, shall grant such permit:

1. For emergency work;
 2. Other work, if work and equipment will not create noise that may be unreasonably offensive to neighbors as to constitute a nuisance; or
 3. If necessary to protect the public health, safety, and welfare.
- E. All muffler systems on construction equipment shall be properly maintained.
- F. All construction equipment shall not be placed adjacent to developed areas unless said equipment is provided with acoustical shielding.
- G. All construction and grading equipment shall be shut down when not actively in use.
- H. Construction activity by or on behalf of a public agency, which is necessary to avoid a disruption of a public project or to protect the public health, safety, and welfare, shall be exempt from the time limitations of this section.

a) Less Than Significant Impact with Mitigation Incorporated

Temporary Noise

A temporary increase in ambient noise levels in the Project area would occur during the proposed Project's seven-month construction duration. There would be noise associated with worker activity and construction equipment during excavation at each manhole site along the 66-inch trunk sewer alignment. The trunk sewer rehabilitation work is proposed to occur in stages, such that construction activities – and the noise associated with them – would not be continuous at a single location for the entire seven-month construction period. The duration of construction noise would last several weeks for RCP trunk sewer cleaning, CIPP lining, and manhole rehabilitation/replacement.

The temporary bypass pipeline alignments under CIPP would involve excavation at the roadway and driveway crossings to a depth of up to five-feet, which would result in noise associated with worker activity and the use of a backhoe, or similar equipment. The majority of the bypass pipeline alignment would be placed above ground and involve minimal use of heavy construction equipment. The bypass pumps and sideline bypass pumps, shown in **Figure 2-2**, would operate around the clock for the duration of the seven-month construction period.

Construction noise levels fluctuate depending on the construction phase, equipment type, and duration of use; distance between noise source and receptor; and presence or absence of barriers between the noise source and receptor. Typical noise levels of pieces of construction equipment that would be used for the proposed Project are shown in **Table 3-9**. A full description of the equipment that could be used at any given time during Project construction can be found in **Section 2 Project Description**.

Table 3-9: Typical Construction Equipment Noise Levels

Equipment	Typical Noise Levels (dBA, at 50 feet)
Backhoe	78
Boiler	Not available
CCTV van	Not available
CIPP resin tanker truck	Not available
Combination vactor/jetter trucks (vacuum excavator) ¹	85
Compactor	83
Compressors	78
Concrete mixer truck	79
Diesel generator	81
Dump truck	76
Excavator	81
Forklift (man lift) ²	75
Flat-bed delivery trucks	74
Grader	85
HDPE Pipe Fusion Machine	Not available
Paver	77
Pumps	81
Pumping system	Not available
Roller	80
Scraper	84
Trailer with CIPP felt liner	Not available
Truck-mounted crane	81
Water trucks	Not available

Source: FHWA, 2006.

1. Typical noise levels from a Vacuum Excavator were available (FHWA 2006) and were used as a proxy for noise levels from a Combination Vactor/Jetter Truck.
2. Typical noise levels from a Man Lift were available (FHWA 2006) and were used as a proxy for noise levels from a Forklift.
3. Typical noise levels were not available for certain pieces of equipment that would be used during construction of the proposed Project, as identified above.

Noise receptors in the vicinity of the proposed Project include light industrial land uses. These land uses would experience different noise levels during the seven-month construction period because the intensity of construction activity would vary and the location of construction equipment would move. The light industrial land uses are located approximately 1,000 feet to the east of the RCP cleaning, CIPP lining, manhole repair/replacement, and bypass pumps. The closest distance between a noise receptor (a business at 2771 Napa Valley Corporate Drive) and a temporary bypass pipeline undergrounding location (the intersection of Napa Valley Corporate Drive/Bordeaux Way) would be 100 feet. The closest distance between a noise receptor (the business at 961 Anselmo Court) and one of the sideline bypass pumps would be approximately 400 feet.

For industrial land uses, Napa County has set a noise limit for daytime construction at 85 dBA at affected property lines. The City of Napa has identified standard construction equipment noise control measures (i.e., maintain mufflers, shut down equipment when not in use, and place equipment far from developed areas or use shielding), but exempts

necessary construction on behalf of a public agency from its noise control regulations. These standards are appropriate for all phases of the proposed Project construction, except operation of the bypass systems under CIPP. Because these pumps would operate around the clock for the entire duration of construction, it is appropriate to apply the City and County land use compatibility standards for industrial land uses, which is noise below 70 dB CNEL/L_{dn}.

The loudest pieces of equipment that could be concurrently in-use during the rehabilitation work include the Combination Vactor/Jetter Truck, Diesel Generator, Truck-mounted Crane, Excavator, Grader, Scraper, and Compactor. In addition, although typical noise levels were not available for the pumping system to inject CIPP resin into the felt liner, it is likely that this equipment would emit relatively loud noise levels at the same time. The loudest pieces of equipment that could be in use at the same time during trenching of the bypass pipelines would include the Truck-mounted Crane, Excavator, Grader, Scraper, Compactor, Diesel Generators, and Pumps.

Noise from multiple sources does not add in a linear fashion. Instead, the doubling of identical sound sources generally results in a 3 dB increase in sound (FTA 2018). For example, if two pieces of construction equipment with identical sound levels of 80 dBA at a distance of 50 feet were to operate simultaneously at one location, the perceived sound level would only be 83 dBA at a distance of 50 feet. Furthermore, sound levels decrease, or attenuate, with distance. Generally, noise from a point source, such as a construction site or a pump, decreases at a rate of 6 dB per doubling of distance across open terrain (FTA 2018). The rate of attenuation is greater if there are walls, hills, or other objects between the noise source and the receiver. A barrier such as a dirt mound that breaks the line-of-sight between the noise source and the receptor generally shields the noise by 3 dBA (FHWA 2006).

Construction would be temporary and would only occur for a few weeks at a time. In addition, construction noise would attenuate with distance and terrain. Furthermore, as explained in *Section 2.4.6 Construction Best Management Practices*, even though the proposed Project, undertaken by a public agency, would be exempt from the City of Napa noise regulations, the Contractor would implement the following basic noise control measures from the City's noise ordinance: muffler systems on construction equipment would be properly maintained; construction equipment would not be placed adjacent to developed areas; and construction and grading equipment would be shut down when not actively in use. Even with multiple pieces of equipment operating at the same time during CIPP lining and bypass pipeline installation, or with spiral wound lining method, construction noise is expected to attenuate to below 85 dBA by the time it reaches receptors located 100-feet to 1,000-feet away.

As explained in *Section 2.4.6 Construction Best Management Practices*, the contract specifications for CIPP rehabilitation would include the maximum sound levels for the bypass pumps and would require the Contractor to comply with City and County noise levels. The sideline bypass pumps, which typically generate noise levels of 81 dBA at a distance of 50-feet (**Table 3-9**) would attenuate to lower than 70 dBA at the nearest receptors located 400-feet away. For these reasons, temporary point source construction noise would be less than significant.

In addition to noise at the active construction sites, construction would cause noise on surrounding roadways from workers, vendors, and construction equipment traveling to and from the site. As explained in *Section 3.3, Air Quality*, construction would generate up to 10 worker round-trip trips per day, two vendor round trips per day, and a total of 60 hauling round trips over the seven-month construction period under the maximum case which is CIPP rehabilitation method with a bypass system. Spiral wound lining method of rehabilitation would generate fewer overall trips because there is no proposed bypass system.

Vehicle noise would depend upon vehicle speed, load, terrain, and existing ambient noise conditions (i.e., truck noise would be more noticeable in quiet conditions). Ambient noise on surrounding roadways is in the range of 70-80 dBA L_{dn} (County of Napa 2013). The Contractor would adhere to City of Napa noise regulations and would ensure that muffler systems on construction equipment are properly maintained. Given the minimal number of additional vehicles that would be added to roadways during Project construction (under either CIPP or spiral wound lining method), and that the additional vehicle noise would be consistent with existing ambient noise, the proposed Project would not

generate a substantial temporary increase in ambient noise levels above the 70 to 80 dB CNEL/L_{dn} that is considered “conditionally acceptable” by the City and County land use compatibility standards for industrial land uses. Temporary line source construction noise would be less than significant.

Construction noise levels could exceed levels compatible for avian species to successfully call during their breeding and nesting season (typically February 1 through August 31). Typically, noise levels of 10 dBA above existing conditions are considered loud enough to interfere with avian calls during breeding and nesting season. **Mitigation Measures BIO 1C, BIO 2A, BIO 13A, and BIO 14A** would reduce noise impacts by requiring a buffer around wetlands, marshes, riparian areas, and streams and sloughs where sensitive avian species may nest. **Mitigation Measure BIO 6A** would reduce noise impacts by requiring a pre-constructing nesting bird clearance survey and appropriate buffer areas. **Mitigation Measures BIO 7A, BIO 8A, BIO 9A, and BIO 10A** would minimize noise impacts on tri-colored blackbird, white-tailed kite, Swainson's hawk, and California Ridgeway's and black rails, respectively, through construction buffers and other protection measures. With mitigation, impacts would be less than significant.

Permanent Noise

After construction is completed, the proposed Project would not be a source of substantial noise. The proposed Project would not increase the ambient noise conditions in the vicinity of the Project above the 70-80 dBA L_{dn} land use compatibility standards for industrial land uses established by both the City and County. There would be no impact related to an increase in permanent ambient noise levels as a result of the Project.

b) Less Than Significant Impact

Construction has the potential to cause groundborne vibration and groundborne noise. Generally, a project would result in a significant impact if it produced groundborne vibration levels equal to or in excess of 0.2 in/sec PPV (FTA 2018). Construction activities associated with the Project would result in temporary spikes in groundborne vibration and groundborne noise. Groundborne vibration levels would fluctuate depending on the construction phase, equipment type, and duration of use, as well as the distance between source and receptor. Typical vibration levels for construction equipment are shown in **Table 3-10**.

Table 3-10: Typical Construction Equipment Vibration Levels

Equipment	Typical Vibration Source Levels PPV at 25-feet (in/sec)
Pile Driver (impact) – typical	1.518
Clam shovel drop (slurry wall)	0.202
Vibratory roller	0.210
Hoe ram	0.089
Large bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jack hammer	0.035
Hydromill (slurry wall) – in soil	0.008
Small bulldozer	0.003

Source: FTA, 2018.

According to the Federal Transit Administration Transit Noise and Vibration Impact Assessment (FTA 2018), groundborne vibration from construction attenuates based on peak particle velocity of the equipment and distance from

the equipment to the receiver. Groundborne vibration from the most impactful piece of equipment (impact pile driver) would attenuate to below 0.2 in/sec PPV at a distance of 100-feet ($PPV_{\text{equip}} = PPV_{\text{ref}} \times (25/D)^{1.5}$) (FTA 2018). The proposed Project does not propose the use of an impact pile driver or similar equipment that has a high probability of causing substantial levels of groundborne vibration. Groundborne vibration from construction of the proposed Project, which would use equipment similar to the large bulldozer reference, would not result in significant groundborne vibration levels even at a distance of 25-feet. Groundborne vibration from multiple pieces of equipment operating simultaneously is expected to attenuate to reach a less than significant level at the distance of the nearest receptors, 100-feet away. Therefore, impacts are anticipated to be less than significant, and no mitigation would be required.

c) No Impact

There is one airport within the vicinity of the proposed Project, the Napa County Airport. The proposed Project is located approximately one-mile north of the airport. The proposed Project area is outside of the noise contours of the Napa County Airport shown in Figure CC-1 of the Napa County General Plan (County of Napa 2013). Therefore, it would not expose workers to excessive aircraft noise levels and there would be no impact.

Mitigation Measures:

To minimize the impacts that a temporary increase in ambient noise could have during construction on sensitive and/or protected wildlife species, the Project would implement Mitigation Measures identified in *Section 3.4 Biological Resources*. **Mitigation Measures BIO 1C, BIO 2A, BIO 13A, and BIO 14A** would reduce noise impacts by requiring a buffer around wetlands, marshes, riparian areas, and streams and sloughs where sensitive avian species may nest. **Mitigation Measure BIO 6A** would reduce noise impacts by requiring a pre-constructing nesting bird clearance survey and appropriate buffer areas. **Mitigation Measures BIO 7A, BIO 8A, BIO 9A, and BIO 10A** would minimize noise impacts on tri-colored blackbird, white-tailed kite, Swainson's hawk, and California Ridgeway's and black rails, respectively, through construction buffers and other protection measures. Impacts are considered less than significant with mitigation incorporated.

3.14 Population and Housing

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
Would the Project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The proposed Project is located along the border of the City of Napa and in the unincorporated area of Napa County. According to the California Department of Finance, the population of the City of Napa is approximately 79,500.

a) No Impact

The proposed Project involves rehabilitation of an existing trunk sewer and the installation of a temporary bypass system within the NapaSan service area; the Project would serve existing communities that currently rely on NapaSan wastewater services. The proposed Project would not increase the capacity of the sewer and it would remain consistent with planned growth in the area. The NapaSan Collection System Master Plan (Winzler & Kelly 2007), which includes the existing trunk sewer and future (2030) buildout conditions, is based on the City of Napa's General Plan. Therefore, the proposed Project would not induce substantial unplanned population growth, directly or indirectly, in the Project area. The proposed Project would not result in unplanned population growth and no mitigation would be required.

b) No Impact

The proposed Project would rehabilitate existing infrastructure and would not displace existing people or housing. Therefore, no impacts related to displacement of people or housing would occur and no mitigation would be required.

Mitigation Measures: None required or recommended.

3.15 Public Services

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

Napa County Fire Department, in cooperation with Cal Fire, provides fire protection and emergency services to unincorporated areas of Napa County. Station 27 is located at 1555 Airport Boulevard in the City of Napa approximately two miles to the southeast of the proposed Project area. The Napa County Sheriff's Department provides law enforcement services, and the California Highway Patrol provides traffic enforcement services within the Project area. The Napa County Sheriff's Department is located at 1535 Airport Boulevard approximately two miles to the southeast of the Project area.

There are no schools located within the Project area. Napa Valley College is located approximately one-mile northeast of the Project area and Irene M. Snow Elementary located over 1.5-miles northwest of the proposed Project.

There are no parks located within the Project area. The Kennedy Park is located less than one quarter mile northwest of the Project area. The closest library, the Napa County Library, is located approximately three miles north of the Project area.

a) No Impact

The proposed Project would not change existing demand for public services (e.g., fire and police protection, schools, parks, libraries, or health clinics) because no increase in population growth would occur from the proposed sewer rehabilitation project. The Project would not increase the capacity of the existing trunk sewer and would continue to serve existing communities and planned future growth in accordance with the NapaSan Collection System Master Plan (Winzler & Kelly 2007) (see *Section 3.13 Population and Housing*). As implementation of the proposed Project would not change the demand for public services, it would not require additional equipment or resources that could have physical environmental impacts. The proposed Project would have no impact on public services and no mitigation is required.

Mitigation Measures: None required or recommended.

3.16 Recreation

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

Discussion

The Project area is characterized by light industrial land uses. According to Napa County's General Plan (County 2013), the former Napa Pipe property has a mixed-use land use designation, which provides flexibility in the future development of the property, allowing either industrial or commercial and residential units. There are no parks or dedicated recreational open spaces located within the Project area. Kennedy Park, located in the City of Napa, is less than one quarter mile northwest of the Project area.

a, b) No Impact

There are no parks within the Project area and rehabilitation of the existing 66-inch trunk sewer would not increase the use of existing parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Similarly, the proposed Project would not include recreational facilities or require the construction or

expansion of recreational facilities that might have an adverse physical effect on the environment. Therefore, no impacts would occur, and no mitigation is required.

Mitigation Measures: None required or recommended.

3.17 Transportation

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

Discussion

The Napa Valley Transportation Authority (NVTA), formerly known as the Napa County Transportation and Planning Agency, serves as Napa County's Congestion Management Agency. NVTA, in conjunction with local, regional, State and federal partners, is responsible for the County's short- and long-term regional transportation priorities.

The NVTA's *Countywide Transportation Plan, Vision 2040 – Moving Napa Forward* (2040 Plan; NVTA 2015) describes the goals and objectives for Napa County's transportation investments for the next 25 years. It outlines key transportation issues, concerns, and opportunities in Napa County. The plan outlines six goals which include improved system safety, prioritizing maintenance and rehabilitation of existing infrastructure, and moving people and goods around more efficiently. The plan also informs the Metropolitan Transportation Commission's (MTC) Regional Transportation Plan and the Sustainable Communities Strategy (RTP/SCS), which is updated every four years. The RTP is a 25-year plan that serves as a framework for the regional planning process to establish consistent and sustainable planning goals throughout the nine county Bay Area region.

a) Less than Significant with Mitigation Incorporated

Project construction would take place during the dry season (approximately May 15 through October 15) to minimize bypass pumping requirements. During construction, the Project would generate trips associated with construction crews and material deliveries. Construction would generate up to 52 round-trip trips per day, including trips for off hauling of export material, delivery of materials, and construction worker commuting, which is the maximum case under CIPP. Construction would involve approximately 840 cubic yards of material export which is accounted for in this truck trip count. Access and construction activities would occur within the County of Napa roadway rights-of-way. Disturbance

activities would occur on existing paved and dirt access roads and in developed and vegetated areas adjacent to the access roads.

Construction would be temporary, and potential traffic-related impacts would not occur in the same location over the seven month construction period, but would rather move along the pipeline alignment. Disturbed areas would be restored to original grade. As such, temporary construction impacts are not expected to have a significant impact related to the 2040 Plan or the RTP/SCS, which focus on long-term, regional circulation projects.

Once operational, the Project would not conflict with these regional transportation plans because it would rehabilitate a below-ground pipeline that would not have a permanent impact on circulation. NapaSan would continue to operate its wastewater system with no operational modifications using standard vehicles. Long-term impacts on the circulation system plans would be less than significant.

Although construction impacts would not be substantial, construction of the proposed Project may necessitate individual traffic lane closures, particularly for the installation, operation, and disassembly of temporary bypass pipelines. To ensure the appropriate traffic controls are implemented and potential traffic impacts related to lane closures are less than significant, the proposed Project shall implement **Mitigation Measure TRA-1**. Project coordination with emergency responders and development of an approved Traffic Control Plan would result in less than significant traffic impacts related to road closures and detours.

b) No Impact

CEQA Guidelines Section 15064.3, subdivision (b) stipulates criteria for analyzing transportation impacts in terms of “vehicle miles traveled” (VMT) for land use projects and transportation projects. VMT refers to the amount and distance of automobile travel attributable to a project.

Construction of the proposed Project would involve temporary trips associated with workers, delivery of construction supplies and equipment, and hauling materials to and from the site. These trips would be temporary over the seven month construction duration and would not result in a perceivable increase in VMT that would exceed County thresholds of significance. There would be no changes to the truck trips associated with O&M as the proposed Project involves rehabilitation of an existing trunk sewer and no new wastewater infrastructure would be constructed. The VMT generated during operation of the proposed Project would be minimal. Therefore, the Project would not be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) and there would be no impact.

c) No Impact

The Project would rehabilitate an existing 66-inch trunk sewer and install temporary bypass pipelines along existing rights-of-way and roadways, which would not have a permanent impact on geometric roadway design. Disturbed areas would be restored to original grade. NapaSan would continue to operate its wastewater system with no operational modifications using standard vehicles, which would not introduce incompatible uses to roadways. The Project would not result in transportation hazards.

d) Less than Significant with Mitigation Incorporated

As explained under Impact a), above, construction of the Project would generate trips associated with construction crews and material deliveries and may necessitate individual traffic lane closures. Lane closures and other construction activities have the potential to result in inadequate access for emergency vehicles. Traffic control requirements would require that emergency crews have access, as needed, and that the Contractor coordinates the location of the work daily for routing of emergency vehicles. Traffic control would also require the Contractor to make reasonable efforts, wherever possible, to provide landowners access to their property and patrons access to businesses during execution of the work. To ensure that Project construction would not interfere with emergency response times, the proposed

Project would implement **Mitigation Measure TRA-1**. With the incorporation of traffic control measures identified in **Mitigation Measure TRA-1**, impacts would be less than significant.

Mitigation Measures:

To lessen possible circulation and emergency access impacts during construction, the Project shall implement practical transportation control measure **Mitigation Measure TRA-1**. Impacts are considered less than significant with mitigation incorporated.

Mitigation Measure TRA-1: Traffic Control Plan

Prior to construction, NapaSan shall require its construction Contractor to implement an approved Traffic Control Plan, to the satisfaction of the NapaSan construction inspector and the County. The components of the Traffic Control Plan shall include:

- Identification of construction staging site locations and potential road closures,
- Alternate routes of traffic detours, including emergency response contact information,
- Planned routes for construction-related vehicle traffic (haul routes), and
- Identification of alternative safe routes to maintain pedestrian safety during construction.

NapaSan's Project manager shall coordinate with the police, fire, and other emergency services to alert these entities about potential construction delays, Project alignment, and construction schedule. NapaSan shall minimize the duration of disruptions/closures to roadways and critical access points for emergency services. The Traffic Control Plan shall provide for traffic control measures including flag persons, warning signs, lights, barricades, and cones to provide safe passage of vehicular, bicycle and pedestrian traffic and access by emergency responders. The Traffic Control Plan shall be submitted to NapaSan's Project manager and construction inspector for review and approval prior to construction.

NapaSan's construction inspector shall have the construction schedule and Traffic Control Plan reviewed by Napa County to ensure construction of the proposed Project does not conflict with construction activities associated with other construction projects that may be occurring at the same time in the vicinity.

3.18 Tribal Cultural Resources

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|

Discussion

This analysis is based on the *Historic Property Survey Report / Finding of Effect* that was prepared by Basin Research Associates in November 2019. A full copy of the report is included as **Appendix D**.

Section 3.5 Cultural Resources provides an overview of the database searches that were conducted for the proposed Project. No prehistoric sites had been recorded in the APE. The archival data for the APE suggested a moderate potential for prehistoric archaeological resources along the Napa River. Overall, the archaeological field inventory observed no evidence of prehistoric or significant historic era archaeological resources in or adjacent to the APE. The *Historic Property Survey Report / Finding of Effect* concluded that the potential for exposing significant archaeological resources or affecting known historic buildings and structures within the APE is low.

NAHC was contacted for a review of the Sacred Lands Inventory. The NAHC response to the search of the Sacred Lands File was positive with the recommendation that the Mishewal-Wappo Tribe of Alexander Valley, one of the five individuals/groups listed as having additional knowledge, be contacted for more information. Communications soliciting additional information were sent to the five Native American individuals/groups recommended by the NAHC (see Attachments to **Appendix D**). Three of the five are federally recognized tribes by the U.S. Bureau of Indian Affairs.

- Charlie Wright, Chairperson, Kletsel Dehe Band of Wintun Indians; a Federally recognized tribe previously listed as the Cortina Indian Rancheria and the Cortina Indian Rancheria of Wintun Indians of California;
- Jose Simon III, Chairperson, Middletown Rancheria of Pomo Indians of California, a Federally recognized tribe;
- Scott Gabaldon, Chairperson, Mishewal-Wappo Tribe of Alexander Valley;
- Corrina Gould, Chairperson, The Confederated Villages of Lisjan; and
- Anthony Roberts, Chairperson, Yocha Dehe Wintun Nation, a Federally recognized tribe previously listed as the Rumsey Indian Rancheria of Wintun Indians of California.

Three responses were received (see Attachments to **Appendix D**). Two of the contacted individuals/tribes did not respond including the Mishewal-Wappo Tribe of Alexander Valley.

- Ms. Sierra Shope, Tribal Council Executive Assistant, Middletown Rancheria of Pomo Indians of California, responded via Mr. Ryan Peterson, Administration & Projects Coordinator (email 8/29/19) that the Middletown

Rancheria is a “Sovereign Tribal Nation comprised of several tribelets including Pomo, Wintu, Wappo and Lake Miwok language,” and that “this project does not fall within our Area of Concern” and to “contact the appropriate Tribe.”

- Mr. Leland Kinter, Tribal Historic Preservation Officer, Yocha Dehe, “... has reviewed the project and concluded that it is within the aboriginal territories of the Yocha Dehe Wintun Nation. ... Based on the information provided, the Tribe has concerns that the project could impact known cultural resources. Please send us detailed blueprints and project information, including any plans for ground disturbance.” Basin Research Associates provided this information and request to NapaSan on September 27, 2019 for follow-up. NapaSan sent an outreach letter to the tribe on October 22, 2019 which included Project information and maps, as well as an offer to meet and provide a copy of the *Historic Property Survey Report / Finding of Effect* once it was completed. To date, no further response has been received.
- Ms. Corrina Gould, Tribal Spokesperson, The Confederated Villages of Lisjan, responded requesting additional information on the water/pond area that appeared to be crossed by two proposed pipelines. Basin Research Associates responded and provided additional maps and information on the pipelines. No further response was received.

Assembly Bill (AB) 52 Consultation

No tribal entities have requested consultation on the Project pursuant to AB 52.

a) Less than Significant with Mitigation Incorporated

As explained above, the possibility of encountering intact surface tribal cultural resources is considered low. However, one tribal group, the Yocha Dehe expressed concerns that the proposed Project could impact known cultural resources. Furthermore, ground-disturbing activities, such as those proposed by the Project, have the potential to expose previously unrecorded tribal cultural resources. **Mitigation Measure CUL-1** addresses procedures in the event of unanticipated discovery of cultural resources, including tribal cultural resources. **Mitigation Measure CUL-2** addresses unanticipated discovery of human burial or funerary objects, including those associated with Native American cultural value. The implementation of these measures would reduce impacts to less than significant.

Mitigation Measures:

Refer to *Section 3.5 Cultural Resources* for **Mitigation Measure CUL-1** and **Mitigation Measure CUL-2**.

3.19 Utilities and Service Systems

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
Would the Project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

Water Supply

Water supply services for the Project area are provided by the City of Napa. The City serves potable water to the lower Napa Valley including City residents and some unincorporated communities of Napa County. The Water Division (Division) of the City's Public Works Department is responsible for the operation, maintenance, and improvement of the municipal drinking water utility owned by the City, including three treatment plants. The Division delivers upwards of 15,000 AF of water annually meeting State and federal drinking water regulations and maintains a proactive water conservation program.

The City of Napa meets its water demands by supplying water from local surface water reservoirs and imported water from the State Water Project (SWP) via the North Bay Aqueduct. In the City's water service area, recycled water treatment and distribution is managed by NapaSan. Wastewater from the City and surrounding unincorporated areas is treated by NapaSan at the SWRF, and recycled water produced there is sold to customers both inside and outside the City's drinking water service area.

The City calculates future demands within their respective service areas based on ABAG's projected population and growth rate projections. ABAG projections are based on the land use policies in the general plans of the jurisdictions within the nine counties in the San Francisco Bay Area Region. Their projections provide consistency between retail and wholesale agencies' water demand projections, thereby ensuring that adequate supplies are being planned for existing and future water users. The City's 2015 UWMP also identifies water supplies necessary to serve the demands of the proposed Project, along with existing and other projected future uses. UWMPs are prepared every five years by urban water suppliers to support their long-term resource planning, and ensure adequate water supplies are available to meet existing and future water demands over a 20-year planning horizon, including the considerations of various drought scenarios and Demand Management Measures. SBX 7-7, enacted in 2009, required retail urban water agencies within California to achieve a 20 percent reduction in urban per capita water use by December 31, 2020.

In dry year conditions, additional drawdown of the City's two reservoirs, Lake Hennessey and Milliken Reservoir, would be employed to supplement supplies during an actual drought. SWP water and recycled water from NapaSan provide additional sources of reliable water to the City as well. Overall, the City projects no water supply shortfalls through

2035. City efforts as described above and in detail in its UWMP 2015 Update will keep water efficiency and conservation at the forefront in Napa, as it will be throughout California.

Wastewater and Recycled Water

NapaSan provides wastewater collection, treatment and disposal services to the residents and businesses in the City of Napa and surrounding unincorporated areas of Napa County. NapaSan has been serving the public since it was organized under the California Health and Safety Code in November 1945. NapaSan serves 13 non-contiguous areas encompassing 12,448-acres and provides wastewater service to over 33,000 customers. It serves the majority of the City of Napa, Silverado Resort area, and some southern portions of the county. The collection system has more than 270-miles of underground pipeline, with diameters ranging from 4- to 66-inches.

Solid Waste

The City's Materials Diversion Division (Recycling and Solid Waste Division) administers the City's recycled and solid waste collection contract with Napa Recycled and Waste Services. Municipal solid waste in the Project area is sent to the Devlin Road Recycling/Transfer station, where waste is then taken for disposal at the Keller Canyon landfill in Contra Costa County. The Devlin Road Recycling/Transfer Station has a permitted capacity of up to 1,600-tons/day. The Keller Canyon Landfill has a permitted capacity 3,500-tons/day with a landfill capacity of 75.018-million cubic yards and is permitted for operation through 2030.

a) Less than Significant Impact

The proposed Project would include rehabilitation of approximately 6,985 linear feet of 66-inch diameter trunk sewer and installation/operation of a temporary sewer bypass system. The proposed Project would not require or result in the construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities beyond the existing NapaSan wastewater system. As discussed in *Section 3.15 Population and Housing*, the proposed Project would serve existing communities and would not induce population growth that would require new or expanded utilities. Therefore, impacts would be less than significant, and no mitigation would be required.

While a temporary bypass pumping system would be necessary to divert live flow during the sewer rehabilitation work under CIPP, the bypass pipeline alignments would only be buried at roadway and driveway crossings. Otherwise, the bypass pipelines would be installed above-ground to minimize excavation and reduce the time required for installation and dismantling. These facilities would be temporary and would not cause significant environmental impacts.

b) Less than Significant Impact

The proposed Project would rehabilitate the existing 66-inch trunk sewer by installing a fully structural CIPP liner or spiral wound liner within the structurally compromised segments of the existing trunk sewer pipeline. CIPP is a structural rehabilitation solution that involves the insertion of a flexible, resin-impregnated synthetic fabric liner into the existing pipe that, when cured, forms a pipe within the existing pipe. For pipelines of this diameter, the liner is inserted into the host pipe via water inversion and then cured using hot water. CIPP requires access to a reliable supply of water for both the inversion and curing processes.

Under the CIPP method, the Project would temporarily increase demand for water by 1.34 million gallons (MG), and is a maximum case as compared to spiral wound lining method. Potable water service for the Project would be provided by the City and recycled water would be provided by NapaSan. Potable water supply lines are scarce in the Project area. The nearest sources for potable water are located at the intersection of Kaiser Road and Syar Way and the four-inch service to the SWRF. Recycled water can also be used to invert and cure CIPP. The SWRF produces recycled water and the nearest access locations are at the western end of Kaiser Road to the north of the Project area and at

the SWRF to the south. The contract documents will allow for potable or recycled water to be used at the discretion of the Contractor. However NapaSan's preference is to use recycled water.

According to the City's 2015 UWMP (Napa 2017), there will be sufficient water supplies to meet projected demands through 2035 in normal, single-dry, and multiple-dry years. Therefore, construction of the proposed Project would result in a less than significant impact on existing and future water supplies.

c) Less than Significant Impact

The proposed Project would rehabilitate an existing trunk sewer and install a temporary bypass system under CIPP, and would not significantly increase wastewater collection or treatment services. The proposed Project would be expected to temporarily generate approximately 1.34 MG of wastewater from the CIPP curing process that would be discharged to the detention ponds at the SWRF. The NapaSan SWRF has a current peak wet weather flow of 58 mgd. Construction of the proposed Project is scheduled during the dry weather season in order to sufficiently accommodate the additional wastewater generated from the CIPP curing process. The additional wastewater contribution from the proposed Project would be considered negligible in relation to the current capacities of the SWRF and the conveyance capacity of the NapaSan system. Therefore, Project -related impacts would be considered less than significant.

d, e) Less than Significant Impact

Construction and implementation of the proposed Project is not anticipated to generate a significant amount of solid waste. The accumulated sediment in the existing 66-inch trunk sewer would be collected during the pre-lining pipeline cleaning process and disposed of by the Contractor. If classified as hazardous, the Project's construction waste would be hauled to either the Kettleman Hills for disposal of toxic sediments from the sewer cleaning, or if not classified as hazardous, it would be hauled to the Devlin Road Recycling/Transfer station for disposal at the Keller Canyon landfill. Solid waste generation would be limited to construction-related activities and would have a negligible impact on available solid waste disposal capacity in the region. No long-term solid waste generation would be associated with the proposed Project. Therefore, impacts would be less than significant, and no mitigation would be required.

Mitigation Measures: None required or recommended.

3.20 Wildfire

	<u>Potentially Significant Impact</u>	<u>Less Than Significant With Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

The proposed Project is located near, but not within, a State Responsibility Area (see **Figure 3-4**). It is located in a non-Very High Fire Hazard Severity Zone in a Local Responsibility Area (see **Figure 3-4**).

a) Less than Significant with Mitigation Incorporated

The Napa County Office of Emergency Services (OES) maintains Napa County's Hazard Mitigation Plan with the purpose to reduce or eliminate future loss of life and property resulting from natural disasters, including wildfires. It is a multi-jurisdictional plan that covers Napa County, City of American Canyon, Town of Yountville, City of St. Helena, City of Calistoga, Napa County Flood Control and Water Conservation District, Napa Valley College, Napa County Office of Education, and is supported by City of Napa.

During construction, the proposed Project would add worker vehicles and heavy construction equipment to public roadways, as well as to private and public land. Potential staging areas include vacant private and public land. The Project would temporarily involve segments of closed traffic lanes. Therefore, Project construction would temporarily block access to some roadways and driveways that are currently used by emergency response vehicles or in emergency evacuations. **Mitigation Measure TRA-1** addresses how NapaSan would communicate with emergency response agencies to develop emergency access strategies. Impacts are considered less than significant with mitigation incorporated.

Once operational, the rehabilitated trunk sewer and manholes would operate similarly to existing conditions. Ground surfaces impacted by construction would be restored to pre-construction conditions. Long-term, the proposed Project would not physically impair or otherwise interfere with emergency response or evacuation. Impacts would be less than significant.

b) Less than Significant

The proposed Project area is located near "Moderate" fire hazard severity zones in a State Responsibility Area (**Figure 3-4**). However, it is not located within the "Moderate" zone and it is located within a Local Responsibility Area designated as non-Very High Fire Hazard Severity Zone (**Figure 3-5**). Therefore, it is not characterized by factors, such as slope or prevailing winds, that would exacerbate wildfire risks and it would not expose Project occupants (i.e., operations and maintenance staff) to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impacts would be less than significant, and no mitigation would be required.

c) No Impact

The proposed Project does not require 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. Long-term, NapaSan would service the rehabilitated trunk sewer and manholes through operations and maintenance activities that are similar to existing practices, which do not require activities that exacerbate fire risk. Therefore, no impacts would occur, and no mitigation would be required.

d) No Impact

The proposed Project area is not characterized by steep slopes that could be susceptible to post-wildfire downslope or downstream landslides. Following construction, all ground surfaces would be restored to pre-construction conditions. Therefore, the proposed Project would not expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. No impacts would occur, and no mitigation would be required.

Mitigation Measures:

Refer to *Section 3.17 Transportation* for **Mitigation Measure TRA-1**.

Figure 3-4: Fire Hazard Severity Zones in State Responsibility Areas

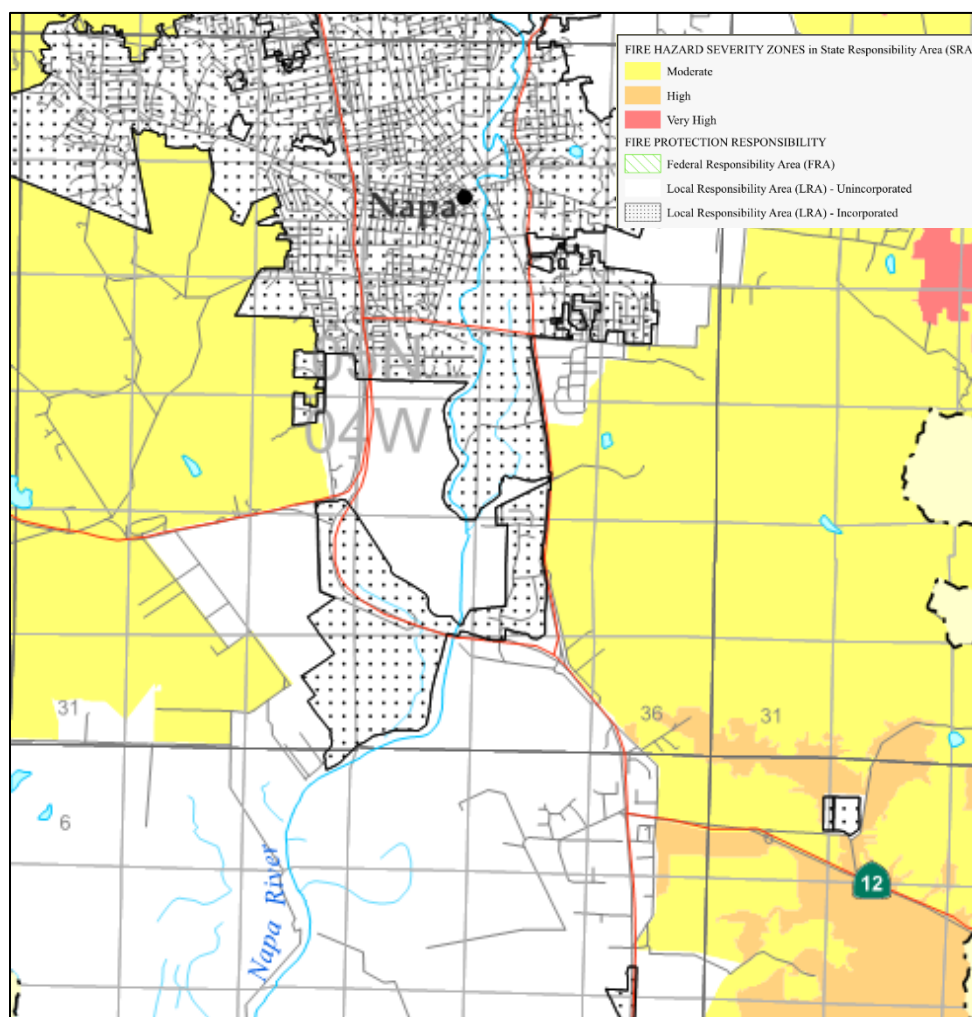
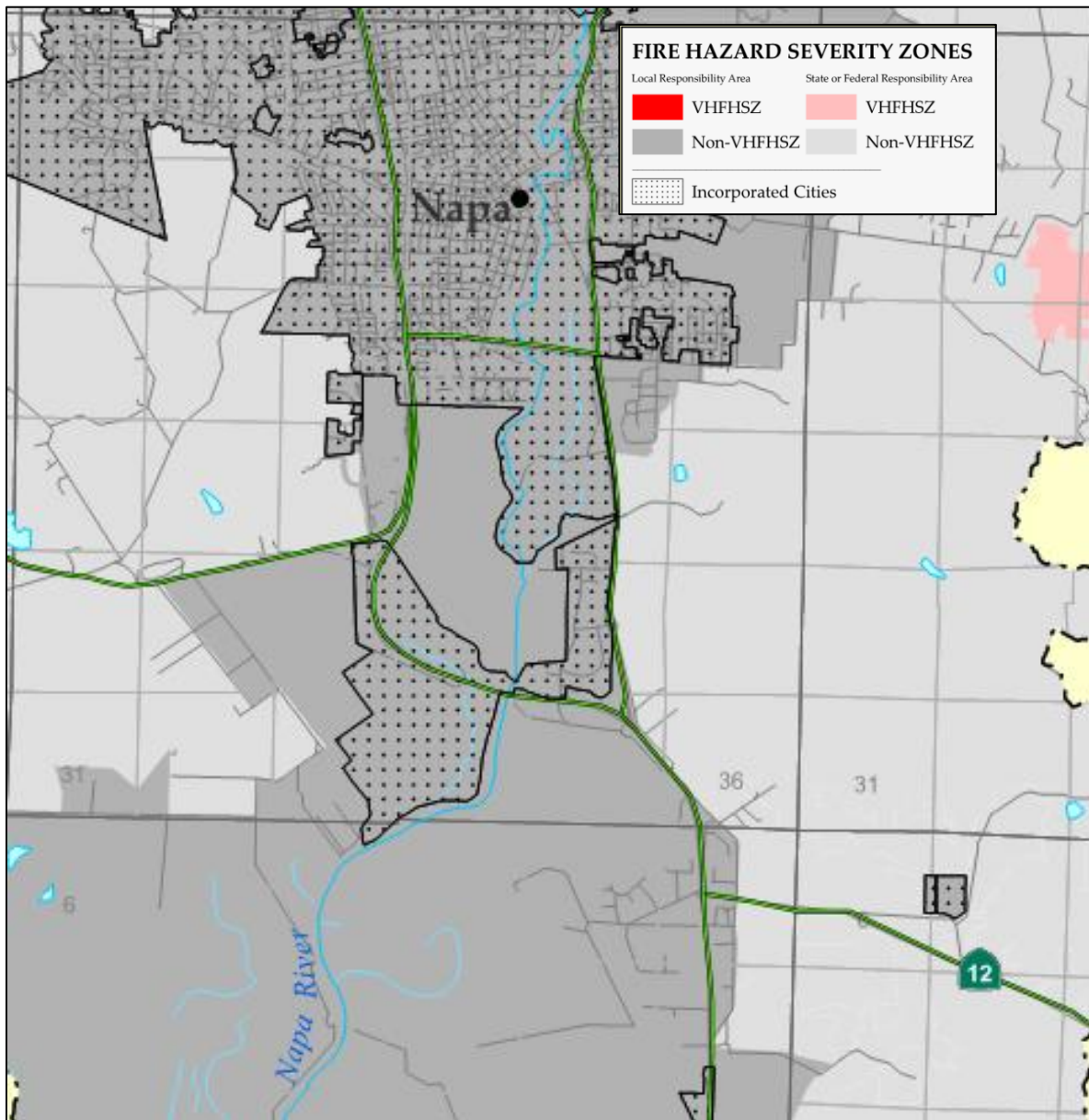


Figure 3-5: Very High Fire Hazard Severity Zones in Local Responsibility Areas



3.21 Mandatory Findings of Significance

	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a) Less than Significant with Mitigation Incorporated

The Project has the potential to affect habitat for fish and wildlife species. **Mitigation Measures BIO 1A, BIO 1B, BIO 1C, and BIO 2A** would require avoidance of wetland and non-wetland waters, wetland buffers, and USACE and RWQCB permits and CDFW Lake and Streambed Alteration Agreement (LSAA) prior to construction for temporary impacts to riparian vegetation. Those measures would be reinforced by mitigation to comply with local County and City policies and ordinances, including **Mitigation Measures BIO 13A, BIO 14A, BIO 15A, and BIO 16A and 16B to protect sensitive resources with setbacks and buffers**. Impacts on sensitive plants and protected bird species would be minimized through pre-construction surveys and appropriate avoidance measures, as required by **Mitigation Measures BIO 3A and BIO 6A. Mitigation Measures Bio 4A, BIO 5A, BIO 7A, BIO 8A, BIO 9A, and BIO 10A, BIO 11A, and BIO 12A** would minimize impacts on salt marsh harvest mouse, bats, tri-colored blackbird, white-tailed kite, Swainson's hawk, California Ridgeway's and black rails, California red-legged frog, and Pacific pond turtle, respectively, through pre-construction surveys, construction buffers and other protection measures.

As described above, the potential exists for accidents to occur during construction activities, which would result in the release of hazardous materials into the environment. **Mitigation Measure HAZ-1** requires the Contractor to develop and implement a Hazardous Materials Management and Spill Prevention and Control Plan that includes Project-specific

contingencies. Subsurface soils excavated during construction could still contain residual hazardous substances from historical contamination on the former Napa Pipe property. Implementation of **Mitigation Measure HAZ-2** would require a Contaminated Soil and Groundwater Contingency Plan to specify actions to take in the event contaminated soil or groundwater is encountered during excavation activities.

Construction noise levels could exceed levels compatible for avian species to successfully call during their breeding and nesting season. To minimize the impacts that a temporary increase in ambient noise could have during construction on sensitive and/or protected wildlife species, the Project would implement Mitigation Measures identified in *Section 3.4 Biological Resources*. **Mitigation Measures BIO 1C, BIO 2A, BIO 13A, and 14A** would reduce noise impacts by requiring a buffer around wetlands, marshes, riparian areas, and streams and sloughs where sensitive avian species may nest. **Mitigation Measure BIO 6A** would reduce noise impacts by requiring a pre-constructing nesting bird clearance survey and appropriate buffer areas. **Mitigation Measures BIO 7A, BIO 8A, BIO 9A, and Bio 10A** would minimize noise impacts on tri-colored blackbird, white-tailed kite, Swainson's hawk, and California Ridgeway's and black rails, respectively, through construction buffers and other protection measures. Impacts are considered less than significant with mitigation incorporated.

Mitigation Measure CUL-1 addresses procedures in the event of unanticipated discovery of cultural resources, including tribal cultural resources. **Mitigation Measure CUL-2** addresses unanticipated discovery of human burial or funerary objects, including those associated with Native American cultural value. The implementation of these measures would reduce impacts to less than significant.

With incorporation of mitigation measures, the proposed Project would not 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, reduce the number or restrict the range of rare or endangered plants or animals or eliminate important examples of the major periods of California history or prehistory.

b) Less than Significant Impact

Implementation of the proposed Project would not result in individually limited, but cumulatively considerable significant impacts. Resource topics associated with the Project have been analyzed in accordance with State CEQA Guidelines and found to pose no impact, a less than significant impact, or a less than significant impact with mitigation. In addition, taken in sum with other projects in the area, the scale of the proposed Project is small and impacts to any environmental resource or issue areas would not be cumulatively considerable. Therefore, impacts would be less than significant.

c) Less than Significant with Mitigation Incorporated

As described above, the unmitigated Project construction emissions would exceed BAAQMD regional NO_x thresholds. However, with implementation of **Mitigation Measure AQ-1** requiring use of 60 percent Tier 4 engine fleet, the Project construction emissions would be below all BAAQMD thresholds.

There is the potential for Project construction to temporarily interfere with routes used by emergency response vehicles or in emergency evacuations. **Mitigation Measure TRA-1** addresses how NapaSan would communicate with emergency response agencies to develop emergency access strategies. Consequently, with the implementation of the above-noted measures, the Project would not result in any environmental effects that would cause substantial adverse effects on human beings directly or indirectly.

4. REPORT PREPARATION

4.1 Report Authors

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4.2 References

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APPENDIX A: CALEEMOD RESULTS

(attached separately)

APPENDIX B: BIOLOGICAL RESOURCES ASSESSMENT

(attached separately)

APPENDIX C: PRELIMINARY JURISDICTIONAL DELINEATION

(attached separately)

APPENDIX D: HISTORICAL PROPERTY SURVEY REPORT / FINDING OF EFFECT

(attached separately)



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