

Exhibit A



**Browns Valley Trunk Sewer Project
Response to Comments and Final Mitigated Negative
Declaration**

January 2017

Response to Comments and Final Mitigated Negative Declaration

Browns Valley Trunk Sewer Project

Prepared for:



Napa Sanitation District
1515 Soscol Ferry Road
Napa, CA 94558

Prepared by:



GHD

2235 Mercury Way, Suite 150
Santa Rosa, California 95407

January 2017

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Appendices

Appendix A Initial Study/Proposed Mitigated Negative Declaration

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1. Project Information

Project Title	Browns Valley Trunk Sewer
Lead Agency Name & Address	Napa Sanitation District 1515 Soscol Ferry Road Napa, CA 94558
Contact Person	Robin Gamble Holley (707) 258-6031

1.1 Introduction

The Browns Valley Trunk Sewer Project (project) is subject to the requirements of the California Environmental Quality Act (CEQA). The Napa Sanitation District (NSD) is the CEQA Lead Agency. An Initial Study/Proposed Mitigated Negative Declaration (IS/Proposed MND) was prepared for the project to satisfy the requirements of CEQA (Public Resources Code (PRC), Div. 13, Sec 21000-21177) and the CEQA Guidelines (California Code of Regulations, Title 14, Sec 15000-15387). A copy of the IS/Proposed MND is included in Appendix A.

The IS/Proposed MND was circulated for 30 days, from November 10, 2016 to December 9, 2016, to allow the public and agencies the opportunity to review and comment on the document. In accordance with the requirements of CEQA, NSD provided a notice of intent to adopt a mitigated negative declaration to the public, responsible agencies, and the Napa County clerk. NSD published a notice in the Napa Valley Register, a newspaper of general circulation in the area affected by the proposed project, and the notice was posted at the Napa County clerk's office for a period of at least 30 days. The IS/Proposed MND was submitted to the State Clearinghouse for review by state agencies, and to responsible and trustee agencies with jurisdiction by law over resources affected by the project. The IS/Proposed MND was made available for public review at the Napa Sanitation District Administration Office, located at 1515 Soscol Ferry Road, as well as online at www.napasan.com.

1.2 Project Location and Description

The proposed project would include construction and operation of new wastewater conveyance facilities, including a new gravity trunk sewer pipeline and improvements to the West Napa Pump Station. Project facilities would be located along several roadways within the City of Napa, including portions of S. Coombs Street, Spruce Street, Franklin Street, Sycamore Street, S. Jefferson Street, Old Sonoma Road, Freeway Drive, 1st Street, and Browns Valley Road. The project would include a crossing of Highway 29 utilizing trenchless technologies.

1.3 Finding of No Significant Effect on the Environment

On the basis of the evaluation in the proposed mitigated negative declaration together with comments received during the public review process, it is determined that although the proposed project could have a significant effect on the environment, there would not be a significant effect in

this case because revisions in the project have been made by or agreed to by NSD. With the recommended mitigation measures and environmental protection actions that NSD has imposed to mitigate or avoid significant environmental effects, no significant adverse effects to the environment are expected from the project. This project would not have a detrimental effect upon either short-term or long-term environmental goals. This project would not have impacts which are individually limited but cumulatively considerable. This project would not have environmental impacts which will cause substantial adverse effects upon human beings, either directly or indirectly.

1.4 Staff-initiated Changes

The following revision has been made to the discussion of nesting seasons in Mitigation Measure BIO-1, Prevent Disturbance to Nesting Birds, on page 3-11 of the IS/Proposed MND.

Mitigation Measure BIO-1: Prevent Disturbance to Nesting Birds

The NSD or their contractor(s) shall ensure that the following mitigation will be followed in order to avoid or minimize potential impacts to passerines and raptors that may potentially nest in the trees:

- Grading or removal of vegetation or nesting trees should be conducted outside the nesting season, which generally occurs between approximately March 1 and August 15, if feasible. Because some bird species nest in grassy and/or shrubby areas, it would be advantageous to remove any trees or vegetation during the non-nesting season.
- If grading or vegetation removal between August 15 and March 1 ~~March 1 and August 15~~ is not feasible and groundbreaking must occur within the nesting season, a pre-construction nesting bird (both passerine and raptor) survey of the grasslands and adjacent trees shall be performed by a qualified biologist within seven days prior to ground breaking. If no nesting birds are observed no further action is required and grading shall occur within one week of the survey to prevent disturbance of individual birds that could begin nesting after the survey. Surveys shall be conducted in advance of installation of dewatering wells.

1.5 Response to Comments on the Initial Study

Comments were received from two agencies during the 30-day comment period:

- 1) State Water Resources Control Board; and
- 2) California Department of Transportation

Comments were also received from the California State Clearinghouse after the close of the 30-day comment period.

NSD must consider the comments received during the comment period prior to adopting a mitigated negative declaration. Responses to the comments received are included in Section 2, Response to Agency Comments.

The comments resulted in minor modifications to the text of the IS/Proposed MND to clarify project details and impacts. The comments did not result in a substantial revision of the mitigated negative declaration. No circumstances were identified that would require the recirculation of the mitigated negative declaration.

1.6 Location of Documents

Copies of this document and supporting references are available at the NSD Administration Office, located at 1515 Soscol Ferry Road.

1.7 Mitigation Measures

A Mitigation Monitoring Program has been prepared for the project and is provided in Appendix B. The mitigation measures and environmental protection actions have been agreed to by NSD and have been found to avoid or mitigate environmental effects such that no significant impacts would occur.

2. Response to Comments

Comments were received from the State Water Resources Control Board and the California Department of Transportation during the 30-day comment period. Comments were also received from the California State Clearinghouse after the close of the 30-day comment period.

The comment letters are provided in the following pages. Responses to the comments follow each of the comment letters.

Where revisions to the text of the Initial Study/Proposed MND are called for, the page and paragraph are set forth, followed by the appropriate revision. Added text is indicated with underlined text. Deletions to text in the IS/Proposed MND are shown with ~~striketrough~~ text.

A copy of the IS/Proposed MND that was circulated for public review is included in Appendix A.

EDMUND G. BROWN JR.
GOVERNORMATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

DEC 08 2016

Robin Gamble Holley
Napa Sanitation District
1515 Soscol Ferry Road
Napa, CA 94559

Dear Ms. Holley:

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION (IS/MND) FOR NAPA SANITATION DISTRICT (DISTRICT); BROWNS VALLEY TRUNK SEWER (PROJECT); NAPA COUNTY; CALIFORNIA; STATE CLEARINGHOUSE NO. 2016112032

We understand that the District is pursuing Clean Water State Revolving Fund (CWSRF) financing for this Project (CWSRF No. C-06-8244-110). As a funding agency and a state agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information on the IS/MND to be prepared for the Project.

The State Water Board, Division of Financial Assistance, is responsible for administering the CWSRF Program. The primary purpose for the CWSRF Program is to implement the Clean Water Act and various state laws by providing financial assistance for wastewater treatment facilities necessary to prevent water pollution, recycle water, correct nonpoint source and storm drainage pollution problems, provide for estuary enhancement, and thereby protect and promote health, safety and welfare of the inhabitants of the state. The CWSRF Program provides low-interest funding equal to one-half of the most recent State General Obligation Bond Rates with a 30-year term. Applications are accepted and processed continuously. Please refer to the State Water Board's CWSRF website at:

www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/index.shtml.

The CWSRF Program is partially funded by the United States Environmental Protection Agency and requires additional "California Environmental Quality Act (CEQA)-Plus" environmental documentation and review. Three enclosures are included that further explain the CWSRF Program environmental review process and the additional federal requirements. For the complete environmental application package please visit:

http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml. The State Water Board is required to consult directly with agencies responsible for implementing federal environmental laws and regulations. Any environmental issues raised by federal agencies or their representatives will need to be resolved prior to State Water Board approval of a CWSRF financing commitment for the proposed Project. For further information on the CWSRF Program, please contact Mr. Ahmad Kashkoli, at (916) 341-5855.

It is important to note that prior to a CWSRF financing commitment, projects are subject to provisions of the Federal Endangered Species Act (ESA), and must obtain Section 7 clearance from the United States Department of the Interior, Fish and Wildlife Service (USFWS), and/or the United States Department of Commerce National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) for any potential effects to special-status species.

Please be advised that the State Water Board will consult with the USFWS, and/or the NMFS regarding all federal special-status species that the Project has the potential to impact if the Project is to be financed by the CWSRF Program. The District will need to identify whether the Project will involve any direct effects from construction activities, or indirect effects such as growth inducement, that may affect federally listed threatened, endangered, or candidate species that are known, or have a potential to occur in the Project site, in the surrounding areas, or in the service area, and to identify applicable conservation measures to reduce such effects.

In addition, CWSRF projects must comply with federal laws pertaining to cultural resources, specifically Section 106 of the National Historic Preservation Act (Section 106). The State Water Board has responsibility for ensuring compliance with Section 106, and must consult directly with the California State Historic Preservation Officer (SHPO). SHPO consultation is initiated when sufficient information is provided by the CWSRF applicant. If the District decides to pursue CWSRF financing, please retain a consultant that meets the Secretary of the Interior's Professional Qualifications Standards (http://www.nps.gov/history/local-law/arch_stnds_9.htm) to prepare a Section 106 compliance report.

Note that the District will need to identify the Area of Potential Effects (APE), including construction and staging areas, and the depth of any excavation. The APE is three-dimensional and includes all areas that may be affected by the Project. The APE includes the surface area and extends below ground to the depth of any Project excavations. The records search request should extend to a ½-mile beyond project APE. The appropriate area varies for different projects but should be drawn large enough to provide information on what types of sites may exist in the vicinity.

Other federal environmental requirements pertinent to the Project under the CWSRF Program include the following (for a complete list of all federal requirements please visit: http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/forms/application_environmental_package.pdf):

- A. An alternative analysis discussing environmental impacts of the project in either the CEQA document (Negative Declaration, MND or Environmental Impact Report (EIR)) or in a separate report.
- B. A public hearing or meeting for adoption of all projects except for those with little or no environmental impacts.

1-1
cont'd



1-1
Cont'd

- C. Compliance with the Federal Clean Air Act: (a) Provide air quality studies that may have been done for the Project; and (b) if the Project is in a nonattainment area or attainment area subject to a maintenance plan; (i) provide a summary of the estimated emissions (in tons per year) that are expected from both the construction and operation of the Project for each federal criteria pollutant in a nonattainment or maintenance area, and indicate if the nonattainment designation is moderate, serious, or severe (if applicable); (ii) if emissions are above the federal de minimis levels, but the Project is sized to meet only the needs of current population projections that are used in the approved State Implementation Plan for air quality, quantitatively indicate how the proposed capacity increase was calculated using population projections.
- D. Compliance with the Coastal Zone Management Act: Identify whether the Project is within a coastal zone and the status of any coordination with the California Coastal Commission.
- E. Protection of Wetlands: Identify any portion of the proposed Project area that should be evaluated for wetlands or United States waters delineation by the United States Army Corps of Engineers (USACE), or requires a permit from the USACE, and identify the status of coordination with the USACE.
- F. Compliance with the Farmland Protection Policy Act: Identify whether the Project will result in the conversion of farmland. State the status of farmland (Prime, Unique, or Local and Statewide Importance) in the Project area and determine if this area is under a Williamson Act Contract.
- G. Compliance with the Migratory Bird Treaty Act: List any birds protected under this act that may be impacted by the Project and identify conservation measures to minimize impacts.
- H. Compliance with the Flood Plain Management Act: Identify whether or not the Project is in a Flood Management Zone and include a copy of the Federal Emergency Management Agency flood zone maps for the area.
- I. Compliance with the Wild and Scenic Rivers Act: Identify whether or not any Wild and Scenic Rivers would be potentially impacted by the Project and include conservation measures to minimize such impacts.

Following are specific comments on the District's draft IS/MND:

1-2

1. Page 1-8 of the IS/MND says "The construction corridor will require use of travel lanes and may require use of adjacent sidewalk." What is the width of the pipeline excavations and construction corridor for the open-trench activities?

1-3

2. Page 1-11 of the IS/MND discusses the West Napa Pump Station Upgrades. Please provide the footprint and depths of any excavation/grading required for these upgrades.

1-4

3. Please consider each the potential staging areas in the study areas for the biological resources report.

1-5

4. Please provide a copy of approvals/conditions from Division of Drinking Water required for a less-than-10-foot offset of sewerline from existing potable lines.

1-6 | 5. Page 3-10 of the IS/MND indicates that a records search was conducted of the CNDDDB and the CNPS. A current USFWS species list is required as part of the CWSRF environmental package. Please update your species list and provide a copy of an official USFWS sensitive species list, which may be obtained on the USFWS website (IPAC): <http://ecos.fws.gov/ipac/>. If any USFWS-listed species have not been surveyed for, please memo the biological report to update the field survey and reconcile any potential Project effects not already evaluated.

1-7 | 6. Page 3-10 of the IS/MND indicates "reconnaissance-level site visit was also conducted on October 14, 2015 to evaluate on-site and adjacent habitat types." Please ensure the appropriate protocol-level surveys are conducted for any special-status species protected under Section 7 of the federal ESA, during the appropriate nesting/breeding season.

1-8 | 7. Page 3-16 of the IS/MND indicates trenching may affect the trees adjacent to historic residences. Please have your archaeologist determine whether these trees are contributing elements (such as aesthetics) to known historic sites. If updates to the site records are required, please provide a copy of the Department of Parks and Recreation forms to demonstrate eligibility (or lack thereof) for the National Register of Historic Places. Your archaeologist should take into account the proposed avoidance measures and trenching methods, then provide a finding of 'no adverse effect' or 'no historic properties affected' based on their assessment.

1-9 | 8. Page 3-34 of the IS/MND indicates the West Napa Pump Station component of the Project would be located within a 100-year floodplain. How much additional impervious surface would be introduced by the project to the pump station site? What is the flood zone designation for the area according to the Federal Emergency Management Agency? Is the area currently protected under a local National Flood Insurance Program requiring certain building requirements, such as elevation or fill?

1-10 | Please provide us with the following documents applicable to the proposed Project following the District's California Environmental Quality Act (CEQA) process: (1) one copy of the draft and final IS/MND/EIR, (2) the resolution adopting the IS/MND and making CEQA findings, (3) all comments received during the review period and the District's response to those comments, (4) the adopted Mitigation Monitoring and Reporting Program (MMRP), and (5) the Notice of Determination filed with the Napa County Clerk and the Governor's Office of Planning and Research, State Clearinghouse. In addition, we would appreciate notices of any hearings or meetings held regarding environmental review of any projects to be funded by the State Water Board.

Thank you for the opportunity to review the District's draft IS/MND. If you have any questions or concerns, please feel free to contact me at (916) 341-6983, or by email at Cedric.Irving@waterboards.ca.gov, or contact Ahmad Kashkoli at (916) 341-5855, or by email at AKashkoli@waterboards.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Cedric Irving". The signature is fluid and cursive, with a large, sweeping flourish at the end.

Cedric Irving
Environmental Scientist

Enclosures (3):

1. Clean Water State Revolving Fund Environmental Review Requirements
2. Quick Reference Guide to CEQA Requirements for State Revolving Fund Loans
3. Basic Criteria for Cultural Resources Reports

cc: State Clearinghouse
(Re: SCH# 2016112032
P.O. Box 3044
Sacramento, CA 95812-3044

2.1 Responses to Comment Letter 1: State Water Resources Control Board

Response to Comment 1-1

NSD appreciates the State Water Resources Control Board's comments on the IS/Proposed MND as a Responsible Agency and as a funding agency pursuant to the Clean Water State Revolving Fund. The documentation required to meet the federal environmental requirements for projects pursuing Clean Water State Revolving Fund financing will be provided to the State Water Resources Control Board as part of the Clean Water State Revolving Fund application for the project.

Response to Comment 1-2

The anticipated width of the pipeline excavation for the open-trench activities would range from 4 feet to 10.5 feet. The anticipated width of the construction corridor for the open-trench activities would vary depending on the location of the proposed improvements, but is conservatively assumed to vary from approximately 25 feet to 46 feet in width.

Response to Comment 1-3

The improvements to the West Napa Pump Station would be internal in nature and would not expand the footprint of the pump station site or require excavation or grading.

Response to Comment 1-4

The potential staging areas identified in the Initial Study / Proposed Mitigated Negative Declaration are located along portions of the alignment that were evaluated in the biological resources study conducted for the project. This included staging areas identified for the Highway 29 undercrossing, and construction staging areas that may occur within and adjacent to the City of Napa road rights-of-way along various portions of the alignment. As described in Section 1.5.1, "Environmental Protection Action 1 – Off-alignment Staging Area Constraints," NSD would ensure that any previously unidentified off-alignment staging areas will not occur where there are jurisdictional wetlands or habitat for special-status species, which will be determined through wetland and habitat surveys to be conducted by qualified biologists.

Response to Comment 1-5

NSD will provide the State Water Resources Control Board with a copy of any approvals and/or conditions from applicable agencies, including the Division of Drinking Water, if portions of the proposed trunk sewer pipeline cannot meet the standards set forth by the California Department of Public Health, Section 64572 – Water Main Separation, dated February 2008.

Response to Comment 1-6

An updated United States Fish and Wildlife Service species list will be submitted as part of the Clean Water State Revolving Fund application for the project. If applicable, an updated habitat evaluation will be provided for previously unlisted species.

Response to Comment 1-7

No suitable habitat is present in the project area for plant or animal species listed under the federal Endangered Species Act. Trees along the alignment do provide potential suitable habitat for bird

species which are protected under the Migratory Bird Treaty Act. Implementation of Mitigation Measure BIO-1, “Prevent Disturbance to Nesting Birds”, would reduce potential impacts to passerines and raptors that may potentially nest in trees by requiring removal of trees and vegetation during non-nesting seasons or performing nesting bird surveys and establishing appropriate buffer zones.

Response to Comment 1-8

Implementation of Mitigation Measure CR-1, “Avoid Loss of Street Trees on Historic Properties”, would prevent impacts to trees adjacent to historic residences. If required, additional information will be submitted as part of the Clean Water State Revolving Fund application for the project.

Response to Comment 1-9

It is not anticipated that the project would add fill or impervious surfaces at the West Napa Pump Station site. According to Flood Insurance Rate Map Number 06055C0516F, the flood zone designation for the area in which the West Napa Pump Station is located is Zone AE, which includes areas subject to inundation by the 1-percent-annual-chance flood event. The improvements to the West Napa Pump Station would not alter or expand the existing footprint of the pump station building.

Response to Comment 1-10

The requested documentation will be provided to the State Water Resources Control Board as part of the Clean Water State Revolving Fund application for the project.

DEPARTMENT OF TRANSPORTATION
 DISTRICT 4
 OFFICE OF TRANSIT AND COMMUNITY PLANNING
 P.O. BOX 23660, MS-10D
 OAKLAND, CA 94623-0660
 PHONE (510) 286-5528
 FAX (510) 286-5559
 TTY 711
 www.dot.ca.gov



*Serious Drought.
 Help save water!*

December 8, 2016

SCH # 2016112032
 GTS # 04-NAP-2016-00031
 NAP-29-13.062

Ms. Robin Gamble Holley
 Engineering Services
 Napa Sanitation District
 1515 Soscol Ferry Road
 Napa, CA 94558

Browns Valley Trunk Sewer Project – Initial Study/Proposed Mitigated Negative Declaration

Dear Ms. Gamble Holley:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Browns Valley Trunk Sewer Project. In tandem with the Metropolitan Transportation Commission's (MTC) Sustainable Communities Strategy (SCS), the Caltrans mission signals a modernization of our approach to evaluating and mitigating impacts to the State Transportation Network (STN). We aim to reduce Vehicle Miles Travelled (VMT) by tripling bicycle and doubling both pedestrian and transit travel by 2020. Our comments are based on the Mitigated Negative Declaration, dated November 2016. Additional comments may be forthcoming, pending final review.

Project Understanding

The project includes construction of approximately three miles of new gravity sewer conveyance facilities. The facilities would convey sewage via gravity until they reach the West Napa Pump station, which would then pump the sewage under the Napa River to Napa Sanitation District's (NSD) existing 66-inch diameter trunk sewer located on the east side of the river. The proposed trunk sewer would range in size from approximately 18 to 54 inches in diameter and would include new manholes designed to moderate flows so as not to overburden the existing West Napa Pump Station. In most locations, the new trunk sewer would be installed parallel to the existing sewer system, with connections made between the existing sewer and the new trunk sewer. This would minimize the need for construction of new sewer laterals to existing utility customers.

2-1
Cont'd

The project location parallels State Route 29 for a mile from Brownsville Road to State Route 121 and crosses to parallel State Route 121/Imola Avenue from State route 29 to Soscol Avenue for about a mile and a half.

Further clarification is requested on the following statement under Detailed Project Description on page 1-7 and 1-8 of the MND, "Installation of the proposed trunk sewer conveyance facilities would require locating the existing inroad and above-ground utilities and, in some instances, the relocation of existing utilities."

Lead Agency

2-2

As the lead agency, the NSD is responsible for all project mitigation, including any needed improvements to state highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. Required roadway improvements should be completed prior to issuance of the Certificate of Occupancy. The Department will not issue a permit until our concerns are adequately addressed, we strongly recommend that the Sanitation District work with both the applicant and the Department to ensure that our concerns are resolved during the CEQA process, and in any case prior to submittal of a permit application.

Transportation Management Plan

Where vehicular, bicycle, and pedestrian traffic may be impacted during the construction of the proposed project requiring traffic restrictions and detours, a Caltrans-approved Transportation Management Plan (TMP) is required. Pedestrian access through the construction zone must comply with the Americans with Disabilities Act (ADA) regulations (see Caltrans' *Temporary Pedestrian Facilities Handbook* for maintaining pedestrian access and meeting ADA requirements during construction at:

2-3

http://www.dot.ca.gov/hq/construc/safety/Temporary_Pedestrian_Facilities_Handbook.pdf

(See also Caltrans' Traffic Operations Policy Directive 11-01 "Accommodating Bicyclists in Temporary Traffic Control Zones" at: www.dot.ca.gov/trafficops/policy/11-01.pdf).

All curb ramps and pedestrian facilities located within the limits of the project are required to be brought up to current ADA standards as part of this project. The TMP must also comply with the requirements of corresponding jurisdictions. For further TMP assistance, please contact the Caltrans District 4 Office of Traffic Management Operations at (510) 286-4579. Further traffic management information is available at the following website:

www.dot.ca.gov/hq/traffops/trafmgmt/tmp_lcs/index.htm.

Transportation Permit

2-4

Project work that requires movement of oversized or excessive load vehicles on State roadways requires a Transportation Permit that is issued by Caltrans. To apply, a completed Transportation Permit application with the determined specific route(s) for the shipper to follow from origin to destination must be submitted to:

Caltrans Transportation Permits Office
1823 14th Street
Sacramento, CA 95811-7119.

See the following website for more information about Transportation Permits:

<http://www.dot.ca.gov/trafficops/permits/index.html>

Cultural Resources

It is recommended that the NSD have a cultural resources survey conducted by a qualified archaeologist and a qualified architectural historian. The cultural resource technical study completed in support of the project (ASC 2015) did not include a field survey of the project area, as is the general professional standard.

2-5

The Native American consultation described in Section 3.5(b,e) on pages 3-16 to 3-17 does not reference compliance with Assembly Bill (AB) 52. Given that this project was initiated after July 1, 2015, it is recommended that this description be revised to clarify that Native American consultation was conducted per AB 52, or the NSD should conduct additional consultation per AB 52 with tribes, groups, and individuals who are interested in the project area and may have knowledge of Tribal Cultural Resources, Traditional Cultural Properties, or other sacred sites.

Lastly, Section 3.5(a) lacks important information and clarity. It is recommended that in the second paragraph that the NSD state on which register(s) or list(s) the Napa County Infirmary Historic District is listed under and the date on which it was listed, state that the Sawyer Tannery was considered eligible for the National Register of Historic Places on June 20, 2001, and clarify that work is to be completed within the roadway and as such there will be no impact to the Napa County Infirmary Historic District or the Sawyer Tannery. Additionally, the third paragraph should include the number of properties adjacent to the project that are listed in the City of Napa's Historic Resources Inventory, and the fourth paragraph should state the approximate number of properties adjacent to the possible tree removal.

Encroachment Permit

2-6

Please be advised that any work or traffic control that encroaches onto the State ROW requires an Encroachment Permit that is issued by Caltrans. Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. To apply, a

Ms. Gamble Holley, Napa Sanitation District
December 8, 2016
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completed Encroachment Permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to the following address:

David Salladay, District Office Chief
Office of Permits, MS 5E
California Department of Transportation, District 4
P.O. Box 23660
Oakland, CA 94623-0660

See the following website for more information:

<http://www.dot.ca.gov/trafficops/ep/index.html>

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Jannette Ramirez at 510-286-5535 or jannette.ramirez@dot.ca.gov.

Sincerely,



PATRICIA MAURICE
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse

2-6
Cont'd

Ms. Gamble Holley, Napa Sanitation District

December 8, 2016

Page 5

bc: PMaurice/JRamirez

loc: P:\Plan\TranComm\LD-IGR\SanMateoCounty\GTS\Sandpiper
Elementary\Sandpiper_MND.docx

Ms. Robin Gamble Holley
Engineering Services
Napa Sanitation District
1515 Soscol Ferry Road
Napa, CA 94558

2.2 Responses to Comment Letter 2: California Department of Transportation

Response to Comment 2-1

NSD appreciates the comments from the California Department of Transportation on the IS/Proposed MND as a Responsible Agency.

The project location is described in Section 1.3 of the IS/MND. The project includes construction of approximately three miles of new gravity sewer conveyance facilities. The project is generally bounded to the east by South Coombs Street at West Imola Avenue and to the west by Browns Valley Road near Thompson Avenue. The project would include a trenchless Highway 29 undercrossing from Old Sonoma Road to Freeway Drive.

Installation of the proposed trunk sewer conveyance facilities would require locating the existing in-road and above-ground utilities during the design and construction process and, in some instances, the relocation of existing utilities. Although it is possible that some utility relocations may be required along portions of the alignment, the need for such relocations has not been identified within the Department's jurisdiction.

The fourth paragraph in Section 1.4.1 of the IS/MND is revised as follows:

Installation of the proposed trunk sewer conveyance facilities would require locating the existing in-road and above-ground utilities and, in some instances, the relocation of existing utilities. The need for utility relocations has not been identified within portions of the alignment to be located within the California Department of Transportation's jurisdiction. Most pipeline segments would be installed using conventional open-trench methods. Trenchless methods would be used for the pipeline segment that would cross beneath Highway 29, and potentially for a portion of Freeway Drive near its intersection with Kilburn Avenue and Laurel Street.

Response to Comment 2-2

NSD is both the CEQA lead agency and the project proponent. As such, there is no "Applicant" for this project. If NSD approves the project, it will adopt a Mitigation Monitoring Program to ensure complete implementation of the mitigation measures and Environmental Protection Actions listed in this document.

Response to Comment 2-3

If requested or required as part of the Caltrans encroachment permit process, NSD will require development and implementation of a Transportation Management Plan for potential traffic restrictions or detours for vehicular, bicycle, and/or pedestrian traffic within a Caltrans right-of-way. The project would not physically affect curb ramps or pedestrian facilities within a Caltrans right-of-way.

The second bullet in Section 1.6 of the IS/MND is revised as follows:

- California Department of Transportation (Caltrans): The project would require a utility encroachment permit from Caltrans District 4 for the pipeline crossing beneath Highway 29 and for a portion of open cut construction at the intersection of 1st Street and Freeway Drive. The project may also require a Caltrans-approved Transportation

Management Plan where vehicular, bicycle, and pedestrian traffic may be affected within a Caltrans right-of-way, and a Transportation Permit for work that requires movement of oversized or excessive load vehicles on State roadways.

Response to Comment 2-4

As indicated in the plans and specifications for the project, NSD will obtain a Transportation Permit if any oversized or excessive load vehicles are required on State roadways.

The second bullet in Section 1.6 of the IS/MND is revised as follows:

- California Department of Transportation (Caltrans): The project would require a utility encroachment permit from Caltrans District 4 for the pipeline crossing beneath Highway 29 and for a portion of open cut construction at the intersection of 1st Street and Freeway Drive. The project may also require a Caltrans-approved Transportation Management Plan where vehicular, bicycle, and pedestrian traffic may be affected within a Caltrans right-of-way, and a Transportation Permit for work that requires movement of oversized or excessive load vehicles on State roadways.

Response to Comment 2-5

The Anthropological Studies Center (ASC) at Sonoma State University conducted an archaeological records search for the project. A pedestrian survey of project alignment was not performed because the project area is paved and/or substantially developed.

Implementation of Mitigation Measure CR-1, "Avoid Loss of Street Trees on Historic Properties", would prevent impacts to trees adjacent to historic residences. A specific historical resources study was not completed by an architectural historian because the project would not otherwise materially impair or affect the integrity of a historic resource.

Although NSD has not received requests for AB52 notifications from Native American tribes, NSD shared project-related information and the archaeological records search results with interested tribal communities and held a meeting with members of the Yocha Dehe Wintun Nation.

For clarification on the Napa County Infirmary Historic District, the Sawyer Tannery, and information on properties located with the City of Napa's Historic Resources Inventory, the following information is provided.

The second paragraph in Section 3.5(a) of the IS/MND is revised as follows:

A portion of the proposed trunk sewer alignment in Old Sonoma Road would be located adjacent to the Napa County Infirmary Historic District. According to the Historic Properties Directory listing for Napa County, the Napa County Infirmary Historic District is not listed on the local Napa County, or California Registers. However, the historic district and contributing buildings were evaluated in 2011 by a historical architect for the National and California Registers and have been found eligible under Criteria C/3 for architecture. The historic district includes buildings A, B, and C recorded under P-28-000820. A portion of the trunk sewer alignment in South Coombs Street would be located in the vicinity of the Sawyer Tannery, which was considered eligible for the National Register of Historic Places on June 20, 2001. Neither construction nor operation of the project would impact the Napa County Infirmary Historic District or the Sawyer Tannery, as construction activities would be completed within the roadway and construction activities would not

require the removal of any adjacent street trees or other vegetation in the vicinity of the properties. The impact would be less than significant.

The third paragraph in Section 3.5(a) of the IS/MND is revised as follows:

Portions of the proposed trunk sewer alignment in Old Sonoma Road, South Jefferson Street, Sycamore Street, Franklin Street, Spruce Street, and South Coombs Street would be located adjacent to approximately 50 residential properties listed in the City of Napa's historic resources inventory. There are several street trees that are located adjacent to some of the listed residential properties on South Jefferson Street, the 1400 and 1600 blocks of Sycamore Street, and a portion of Franklin Street.

The fourth paragraph in Section 3.5(a) of the IS/MND is revised as follows:

The street trees located adjacent to the listed residential properties are not intended to be directly removed during construction. However, because several of the street trees located adjacent to approximately 12 properties are located near the proposed excavation limits, trench excavations may potentially encounter root zones of certain trees, which could impact the overall health or stability of a tree. If mature street trees located adjacent to properties listed in the City of Napa's historic resources list were impacted, the contributing landscape elements of a listed historical resource could be negatively affected. The impact may be significant.

Response to Comment 2-6

NSD will apply to Caltrans for an Encroachment Permit for any work or traffic control that encroaches onto the State right-of-way. Traffic-related control measures will be incorporated into construction plans for the project based on continued coordination with Caltrans.



STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

December 12, 2016



Robin Gamble Holley
Napa Sanitation District
1515 Soscol Ferry Rd
Napa, CA 94558-0522

Subject: Browns Valley Trunk Sewer
SCH#: 2016112032

Dear Robin Gamble Holley:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on December 9, 2016, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

3-1

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

**Document Details Report
State Clearinghouse Data Base**

SCH# 2016112032
Project Title Browns Valley Trunk Sewer
Lead Agency Napa Sanitation District

Type MND Mitigated Negative Declaration
Description Construction and operation of new wastewater conveyance facilities, including a new gravity trunk sewer pipeline and improvements to the West Napa Pump Station.

Lead Agency Contact

Name Robin Gamble Holley
Agency Napa Sanitation District
Phone (707) 258-6031 **Fax**
email
Address 1515 Soscol Ferry Rd
City Napa **State** CA **Zip** 94558-0522

Project Location

County Napa
City Napa
Region
Lat / Long
Cross Streets Coombs/Spruce/Franklin/Sycamore/Jefferson/Old Sonoma/Freeway/1st/Browns Valley
Parcel No. 005-171-014
Township 5N **Range** 4W **Section** 15 **Base**

Proximity to:

Highways 29
Airports Napa Valley RR
Railways
Waterways Napa River
Schools Harvest MS
Land Use pump station - mixed use; pipeline - varies

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 3; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 4; State Water Resources Control Board, Division of Drinking Water; State Water Resources Control Board, Division of Drinking Water, District 3; State Water Resources Control Board, Division of Financial Assistance; Regional Water Quality Control Board, Region 2; Native American Heritage Commission; Public Utilities Commission

Date Received 11/10/2016 **Start of Review** 11/10/2016 **End of Review** 12/09/2016

3-1
Cont'd

2.3 Responses to Comment Letter 3: California State Clearinghouse and Planning Unit

Response to Comment 3-1

The letter acknowledges NSD's compliance with the State Clearinghouse review requirements for environmental documents, pursuant to the California Environmental Quality Act. NSD appreciates the assistance of the State Clearinghouse in providing the environmental document to selected State agencies for review and comment.

3. Preparers

3.1 Napa Sanitation District

Robin Gamble Holley, NSD

Andrew Damron, NSD Capital Program Manager

3.2 GHD

Brian Bacciarini, Senior Environmental Scientist

Pat Collins, Quality Control

Matt Winkelman, Senior Civil Engineer

Nick Colley, Environmental Scientist

Appendices

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Appendix A Initial Study/Proposed Mitigated Negative Declaration

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Browns Valley Trunk Sewer Project Initial Study/Proposed Mitigated Negative Declaration

November 2016

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Initial Study/Proposed Mitigated Negative Declaration

Browns Valley Trunk Sewer Project

Prepared for:



Napa Sanitation District
1515 Soscol Ferry Road
Napa, CA 94558

Prepared by:



GHD

2235 Mercury Way, Suite 150
Santa Rosa, California 95407

November 2016

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Acronyms and Abbreviations

ALUC	Airport Land Use Plan
ASC	Anthropological Studies Center
BAAQMD	Bay Area Air Quality Management District
BASMAA	Bay Area Stormwater Management Agencies Association
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
Cal-OSHA	California Division of Occupational Safety and Health
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO ₂ e	Carbon Dioxide equivalent
CPHR	California Register of Historic Places
CSMP	Collection System Master Plan
dBA	A-Weighted Sound Level
ELAP	Environmental Laboratory Accreditation Program
FEMA	Federal Emergency Management Agency
HAZWOPER	Hazardous Waste Operations and Emergency Response
hp	horsepower
HRI	Historic Resources Inventory
IS	Initial Study
Leq	energy –equivalent sound/noise descriptor
Lmax	maximum noise level
LOS	Level of Service
MBTA	Migratory Bird Treaty Act

mgd	million gallons per day
MLD	Most Likely Descendant
MND	Mitigated Negative Declaration
MT	metric tons
MRZ	Mineral Resource Zone
NAHC	Native American Heritage Commission
NCTPA	Napa County Transportation and Planning Agency
NO _x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NSD	Napa Sanitation District
OSHA	Occupational Safety and Health Administration
PM	particulate matter
PM ₁₀	Particle matter less than 10 micrometers in diameter
PM _{2.5}	Particle matter less than 2.5 micrometers in diameter
PPV	peak particle velocity
PRC	Public Resources Code
ROG	Reactive Organic Gasses
SCADA	Supervisory Control and Data Acquisition
SFBAAB	San Francisco Bay Area Air Basin
SRF	State Revolving Fund
SSC	California Species of Special Concern
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey

1. Project Information

Project Title	Browns Valley Trunk Sewer
Lead Agency Name & Address	Napa Sanitation District 1515 Soscol Ferry Road Napa, CA 94558
Contact Person	Robin Gamble Holley (707) 258-6031
Project Location	City of Napa (See Section 1.3)
Project Sponsor	Napa Sanitation District 1515 Soscol Ferry Road Napa, CA 94558
General Plan Designation	Pipeline: various West Napa Pump Station: MU-489 (Mixed Use)
Zoning	Pipeline: various West Napa Pump Station: MU-T (Tannery Bend Mixed Use)
Description of Project	Construction and operation of a new gravity trunk sewer pipeline and improvements to the West Napa Pump Station.
Surrounding Land Uses and Setting	Pipeline: various - primarily in public roadways adjacent to residential, commercial, and recreational uses. West Napa Pump Station: vacant parcel to the north; vacant floodplain and the Napa River to the east; bridge to the south; and commercial and residential to the west.

1.1 Introduction

The Browns Valley Trunk Sewer Project (project) is subject to the requirements of the California Environmental Quality Act (CEQA). The Napa Sanitation District (NSD) is the CEQA Lead Agency. The purpose of this Initial Study is:

- To provide a basis for deciding whether to prepare an Environmental Impact Report, a Mitigated Negative Declaration, or a Negative Declaration;
- To disclose potential project environmental impacts; and

- To inform the CEQA Lead Agency, responsible agencies, trustee agencies, and the public regarding the potential environmental impacts of the project.

This Initial Study has been prepared to satisfy the requirements of CEQA (Public Resources Code (PRC), Div. 13, Sec 21000-21177) and the CEQA Guidelines (California Code of Regulations, Title 14, Sec 15000-15387).

1.2 Project Overview

NSD owns and operates wastewater collection, conveyance, recycled water and treatment facilities serving the City of Napa and select unincorporated areas of Napa County. The collection system includes approximately 271 miles of sewer pipelines and four sanitary sewer pump stations.

In 2007, NSD completed a Collection System Master Plan (CSMP) that identified the need to address hydraulic deficiencies in sewers west of Napa River and downstream infrastructure. In response, NSD initiated several improvement projects and infiltration and inflow (I/I) reduction projects in west Napa that have resulted in a substantial reduction in non-wastewater flows.

Even with the reduction in non-wastewater flows, NSD has determined that a new trunk sewer is needed in west Napa to intercept flows upstream from the downtown area and convey them directly to the West Napa Pump Station. The new trunk sewer will serve to alleviate surcharging in existing sewers and reduce the extent of sewer replacement projects needed downstream.

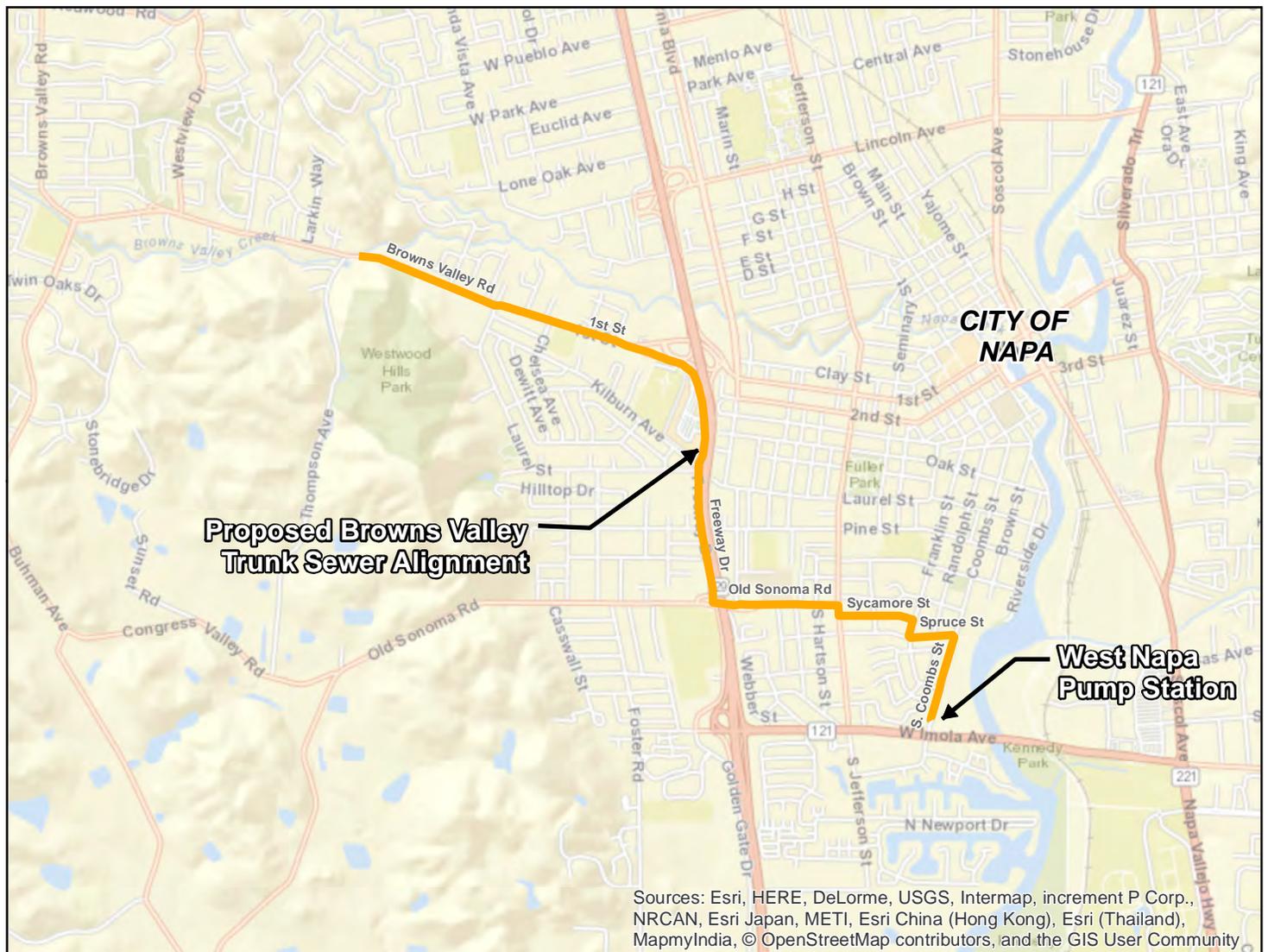
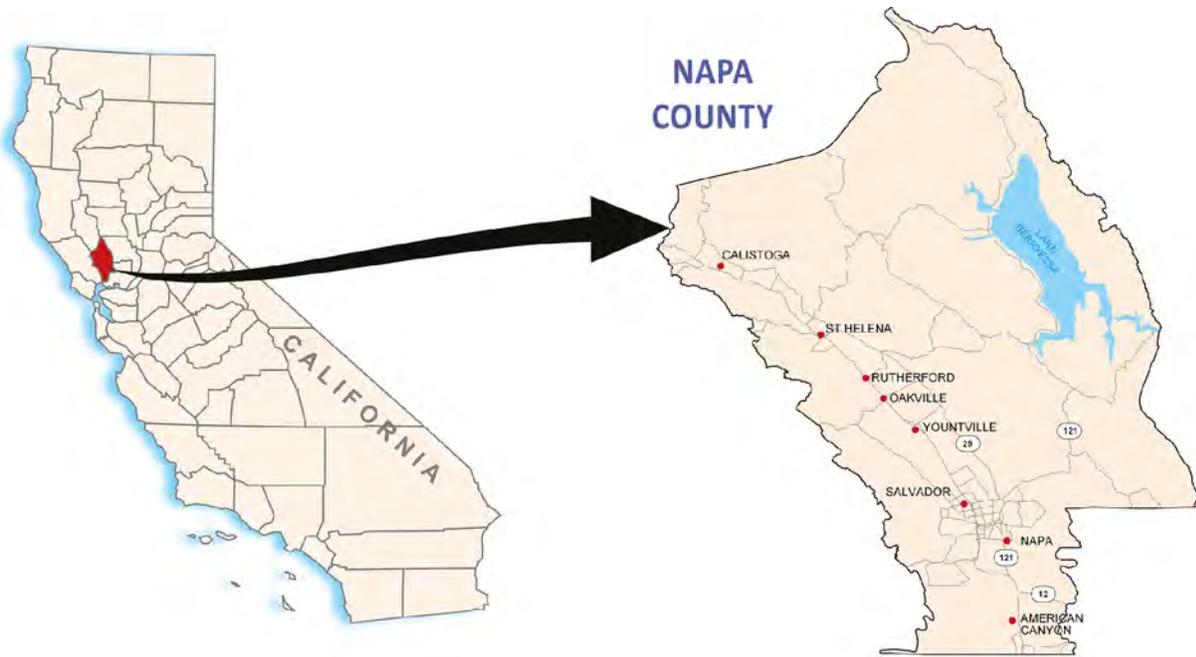
The 2007 CSMP also identified operation and maintenance issues associated with the existing West Napa Pump Station, which receives flows from the west side of Napa and conveys it through a pressurized force main under the Napa River. The West Napa Pump Station has been in service for nearly 45 years and no longer conforms to industry standards for wastewater pumping facilities. The existing West Napa Pump Station has an inadequate firm capacity to pump existing flows¹. The proposed improvements to the West Napa Pump Station would address capacity, safety, reliability, and operation, and maintenance deficiencies.

1.3 Project Location

The project would be located in the City of Napa, California. The City of Napa is located within Napa County, approximately 35 miles northeast of San Francisco (see Figure 1). Regional access to the project area is provided by State Routes 29, 121, and 221.

The proposed conveyance facilities would be located primarily along paved roadways within urban areas of the city (see Table 1-1 and Figure 2). The project is generally bounded to the east by South Coombs Street at West Imola Avenue and to the west by Browns Valley Road near Thompson Avenue.

¹ Firm capacity of a pump station is the total pumping capacity remaining during the loss of primary power and when the largest pump is out of service.



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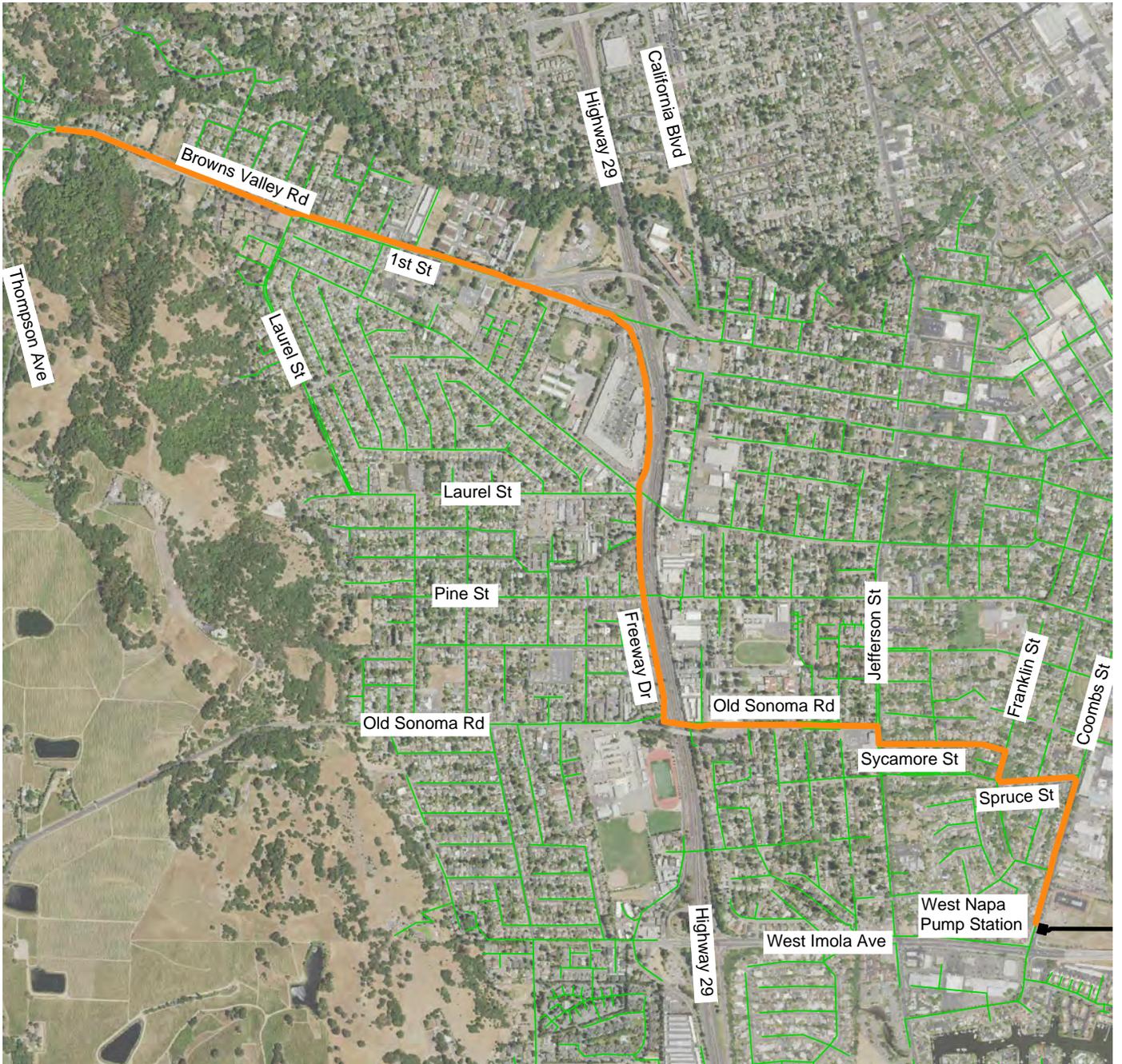
Napa Sanitation District
 Browns Valley Trunk Sewer Project

Job Number 11109164
 Revision A
 Date 16 Aug 2016

Vicinity Map

Figure 1

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Legend

- Proposed Trunk Sewer
- Existing Sewer Pipes
- Existing Force Main
- West Napa Pump Station



Napa Sanitation District
Browns Valley Trunk Sewer Project

Job Number | 11109164
Revision |
Date | Aug 2016

Proposed Trunk Sewer

Figure 2

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Table 1-1 Location and Length of Conveyance Facilities

Street	Pipeline Segment	Length (approximate feet)
S. Coombs Street	From West Napa Pump Station to Spruce Street	1,500
Spruce Street	From S. Coombs Street to Franklin Street	750
Franklin Street	From Spruce Street to Sycamore Street	300
Sycamore Street	From Franklin Street to S. Jefferson Street	1,300
S. Jefferson Street	From Sycamore Street to Old Sonoma Road	200
Old Sonoma Road	From S. Jefferson Street to Walnut Street/Oran Court	1,700
Hwy 29 Undercrossing	From Old Sonoma Road to Freeway Drive	500
Freeway Drive	Old Sonoma Road to 1st Street	5,000
1st Street	From Freeway Drive to Laurel Street	2,500
Browns Valley Road	Laurel Street to Thompson Avenue	2,500

1.4 Detailed Project Description

The proposed project includes two primary components: 1) new trunk sewer conveyance facilities; and 2) improvements to the existing West Napa Pump Station. A description of each component, including a description of the anticipated construction process, is provided below.

1.4.1 Trunk Sewer Conveyance Facilities

The project includes construction of approximately three miles of new gravity sewer conveyance facilities. The facilities would convey sewage via gravity until they reach the West Napa Pump station, which would then pump the sewage under the Napa River to NSD's existing 66-inch diameter trunk sewer located on the east side of the river. The proposed trunk sewer would range in size from approximately 18 to 54 inches in diameter and would include new manholes designed to moderate flows so as not to overburden the existing West Napa Pump Station.

In most locations, the new trunk sewer would be installed parallel to the existing sewer system, with connections made between the existing sewer and the new trunk sewer. This would minimize the need for construction of new sewer laterals to existing utility customers.

In some locations, adequate space is not available to install the new trunk sewer parallel to existing sewer mains. In such cases, the existing sewer main would be removed and the new trunk sewer would be installed in its place, with new laterals installed to connect to the trunk sewer. Such replacements would occur within South Coombs Street, Franklin Street, Sycamore Street, and Freeway Drive, in which a total of approximately 2,900 lineal feet of existing sanitary sewer pipeline would be removed. The new laterals would connect to the existing lateral and be installed only within the existing right-of-way to the curb or back of sidewalk.

Installation of the proposed trunk sewer conveyance facilities would require locating the existing in-road and above-ground utilities and, in some instances, the relocation of existing utilities. Most

pipeline segments would be installed using conventional open-trench methods. Trenchless methods would be used for the pipeline segment that would cross beneath Highway 29, and potentially for a portion of Freeway Drive near its intersection with Kilburn Avenue and Laurel Street.

Temporary groundwater dewatering would be conducted along the pipeline route to provide a dry work area. Traffic controls would be implemented for work occurring within the public right-of-way, including travel lanes, bicycle lanes, and parking lanes on City of Napa streets, sidewalks, and other areas designated as right-of-way and easements. Tree removals and pruning would be required along portions of the alignment. Roadways disturbed during installation of pipelines and appurtenances would be restored to general pre-construction conditions.

Each project element is described in more detail below.

Utility Locating and Relocations

Underground utility mains would be identified and labeled in the field prior to construction, including sanitary sewer, water, electrical, natural gas, telecommunications, storm drains, street lights, and other fiber optic lines. Potholing will be implemented along portions of the alignment to further confirm utility locations, which will include the digging of test holes to uncover utilities to help ascertain horizontal and vertical locations. Such work would be performed within the public right-of-way and would be completed in accordance with City of Napa and Caltrans Encroachment Permit requirements.

The project is being designed to minimize displacement of existing utilities to the extent feasible. However, in some locations, existing gas, water, electrical, and fiber optic lines would need to be relocated within the road right-of-way to accommodate the project.

Where possible, the trunk sewer pipeline would be set back at least 10 feet from existing potable water lines. Where such separation is not feasible, pipelines would be installed with special pipe materials, greater vertical separation, and other special precautions, with approvals to be required by the City of Napa and State Water Resources Control Board Division of Drinking Water.

Open-trench Construction

For pipeline segments to be installed using open-trench methods, the construction sequence would typically include clearing and grading the ground surface along the pipeline alignments; excavating the trench; preparing and installing pipeline sections; installing vaults, manholes, and other pipeline components; backfilling the trench with non-expansive fills; restoring preconstruction contours; and revegetating or paving the pipeline alignments, as appropriate.

Installation of pipelines using open-trench methods would generally progress by approximately 100 feet per day within or along roadways. Progress at intersections or major utility crossings may be slower. Pipelines would be installed at depths ranging from approximately 8 to 19 feet below ground surface. The construction corridor will require use of travel lanes and may require use of adjacent sidewalk.

Trenchless Technologies

Geotechnical explorations have been completed for the proposed trenchless crossing locations at Highway 29 and at Freeway Drive near Kilburn Avenue. Based on the depth of casing relative to the ground and groundwater conditions at the proposed Highway 29 crossing, installation of the

casing beneath Highway 29 would require microtunneling. The ground conditions and depth of pipe at the Freeway Drive trenchless crossing would be favorable for auger boring (jack and bore) or guided auger boring. Both the microtunneling and the jack-and-bore methods would entail excavating a jacking pit and a receiving pit at either end of the trenchless reach.

Microtunneling employs the use of a drilling fluid to transport the excavated cuttings (slurry) back to a small onsite separation plant for cleaning and reuse as drilling fluid. The drilling fluid pumped to the front of the machine is maintained under pressure to counterbalance the groundwater pressure.

For auger boring, a horizontal or auger boring machine is used to drill a hole with augers inside a steel casing to excavate and transport the muck. Hydraulic jacks are used to jack the casing forward while the ground is simultaneously excavated by the augers. Casing and auger segments are successively added to the pipe string until the casing and augers push through the portal in the receiving pit.

Highway 29 Undercrossing

Microtunneling would require water-tight shaft construction. A rectangular sending pit approximately 40 feet long and 12 feet wide would accommodate 10 foot casing segments. The receiving pit would be approximately 12 feet long and 12 feet wide. The jacking and receiving pits would be excavated to approximately 20 to 25 feet deep. Shoring for the pits would likely be pile driven or vibrated to approximately 10 feet below the bottom of the pit excavations.

Construction equipment would include a large excavator, crane, pile driving equipment, microtunnel support equipment (i.e., slurry separation plant, lubrication plant, control cab, tool trailer, etc.) dump trucks, loaders, generators, and Baker tank (or similar storage container). Spoils from the tunneling pits would be stockpiled and then repurposed as engineered fill to backfill the pit excavations once the carrier pipe is completed.

The sending pit on the west side of Highway 29 would be located on City of Napa owned right-of-way located near the intersection of Old Sonoma Road and Freeway Drive. The existing curb adjacent to the property would need to be cut to provide an access for construction related vehicles. A layer of crushed rock would likely be installed in the staging area to provide a stabilized surface for construction vehicles, and the site would likely be fenced.

The receiving pit on the east side of Highway 29 would be located within City of Napa's road right-of-way near the intersection of Old Sonoma Road, Walnut Avenue, and Oran Court. Staging would likely occur on the south side of Old Sonoma Road, across the street from the Napa County Juvenile Justice Center. The staging area would likely extend along the shoulder of the road where dirt side parking is currently utilized.

Freeway Drive/Kilburn Avenue Trenchless Crossing

To jack and bore 20-foot long casing segments, a sending pit approximately 40 feet long by 12 feet wide would be required. The shaft length would shorten by approximately 10 feet for 10 foot casing segments. The receiving pit for auger boring would be approximately 12 to 12 feet square or as necessary for tie-ins and manhole construction. The pits are not expected to be deeper than 15 feet at the Freeway Drive crossing. Shoring for the pits may be pile driven or vibrated to approximately 10 feet below the bottom of the pit excavations. The pits could also be developed with a trench box system.

Construction equipment would include a large excavator, auger bore rig and small support crane, dump trucks, loaders, generators, and Baker tank (or similar storage container). Spoils from the pits would be stockpiled and then repurposed as engineered fill to backfill the pit excavations once the carrier pipe is completed.

Groundwater Dewatering

Temporary groundwater dewatering would be conducted by drilling dewatering wells, approximately 30- to 35-feet deep, along segments of the alignment. Dewatering wells would be constructed in accordance with State regulations and subject to permits from the Napa County Environmental Health Division. It is anticipated that dewatering wells would be required at approximately 50 foot intervals along the alignment, including in the areas of sending and receiving pits for trenchless drilling. Electric submersible pumps would be used in the dewatering wells to pump groundwater to a pipe that would be extended to one or more Baker tanks (or other similar type of settling tank). Following the settling process provided by a tank, the groundwater would be pumped to a bag and cartridge filter system (or other similar system) before being discharged to the sanitary sewer system or other permitted location. This process would be conducted along different segments of the pipe alignment to provide a dry work area as pipeline installation progresses. Settling tanks would be placed in the street adjacent to the curb. Following completion of a pipeline installation, any temporary dewatering wells no longer needed would be abandoned in accordance with State regulations.

Traffic Control

Construction activities would primarily occur within the public right-of-way, including travel lanes and parking lanes on City of Napa streets, sidewalks, and other areas designated as right-of-way. In some portions of the alignment, such as along Browns Valley Road, Freeway Drive, Old Sonoma Road, and Coombs Street, partial lane closures would be required. In other portions of the alignment, such as along Sycamore Street, a road closure providing restricted local access may be employed.

Encroachment Permits are required by the City of Napa Municipal Code whenever work is being performed in the public right-of-way. As part of the Encroachment Permit process, the construction contractor would be required to prepare Traffic Control Plans for review and acceptance of planned work within the public right of way. This would include information on the lengths and widths of work zones, tapers and sign spacing, and all lanes to be used, closed, reduced, or left open. The development and implementation of Traffic Control Plans may also include, but not necessarily be limited to:

- Traffic controls, signs, and flaggers required for conformance with the current California Manual of Uniform Traffic Control Devices.
- Pedestrian and bicycle control devices;
- Notifications/arrangements for any driveway access restrictions;
- Notifications of lane/road closures to public transit agencies, such as VINE bus service, AT&T, PG&E, and Wine Train;
- Notifications to emergency responders;
- Scheduling of major street lane/road closures during off-peak hours;

- Detour routes; and
- Changeable message boards prior to and during scheduled operations.

Tree Pruning and Removals

Overhead and/or side pruning of approximately 90 trees may be required along portions of the alignment (see Table 1-2). Construction activities are also expected to require direct removal of approximately five trees on City-owned property located adjacent to the intersection of Old Sonoma Road and South Freeway Drive. The trees that would require direct removal consist of non-native incense cedars (*Calocedrus decurrens*) and raywood ash (*Fraxinus axy. 'Raywoodii'*).

The majority of the trees that would require pruning are non-native ornamental trees, such as London plane tree (*Platanus acerifolia*), flowering pear (*Pyrus calleryana*), sweetgum (*Liquidambar styraciflua*), crape myrtle (*Lagerstroemia indica*) and others. Native trees that may require pruning include valley oak (*Quercus lobate*), coast live oak (*Quercus agrifolia*), and coast redwood (*Sequoia sempervirens*).

Permits are required by the City of Napa Municipal Code whenever pruning of street trees on public property or protected trees on private property are required. Street trees and other trees would be protected during construction to the extent possible, and trees requiring removal would be replaced.

Table 1-2 Tree Pruning Estimates and Locations

Street	Pipeline Segment	Pruning Estimates (# of trees)
S. Coombs Street	From West Napa Pump Station to Spruce Street	10
Spruce Street	From S. Coombs Street to Franklin Street	1
Franklin Street	From Spruce Street to Sycamore Street	4
Sycamore Street	From Franklin Street to S. Jefferson Street	32
S. Jefferson Street	From Sycamore Street to Old Sonoma Road	4
Old Sonoma Road	From S. Jefferson Street to Walnut Street/Oran Court	6
Hwy 29 Undercrossing	From Old Sonoma Road to Freeway Drive	6
Freeway Drive	Old Sonoma Road to 1st Street	26
1st Street	From Freeway Drive to Laurel Street	0
Browns Valley Road	Laurel Street to Thompson Avenue	1

1.4.2 West Napa Pump Station Upgrade

The project includes improvements to the West Napa Pump Station to address reliability and safety deficiencies, odor control, painting, and landscaping improvements. The Pump Station currently receives sewage from the existing west Napa and downtown sewers before pumping the sewage under the Napa River to the NSD's existing 66-inch diameter trunk sewer located on the east side of the river. The West Napa Pump Station currently houses two 100 horsepower (hp) pumps and one 35 hp pump. The existing firm capacity of the West Napa Pump Station is 13 million gallons per

day (mgd). Currently, flow into the pump station is restricted to 16 mgd by the pump station's inlet pipe.

With construction of the new trunk sewer, peak flow from west Napa conveyed through the trunk sewer to the pump station could range up to 28 mgd. Flow control structures would be installed in conjunction with the new trunk sewer to regulate collection system flows upstream of the pump station in order to limit the flow at the pump station to 16 mgd, which is the current maximum flow rate capacity at the pump station. Emergency bypass improvements would be installed within an existing meter vault to facilitate shutdown of the Pump Station for maintenance activities and to aid in handling peak flows during storm events.

To address the existing inadequate firm capacity at the West Napa Pump Station, the project would replace the existing 35 hp submersible pump with a new higher capacity pump, at approximately 100 hp. The firm capacity of the West Napa Pump Station following pump replacement would be approximately 16 mgd, which would match the anticipated flow from the new trunk sewer.

Improvements to the West Napa Pump Station would also address safety, reliability, and operation and maintenance deficiencies of the existing pump station, including:

- replacement of outdated electrical equipment and wiring;
- seismic upgrades to the building and structural elements within the building;
- replacement of handrails and stairs;
- new piping components, including vibration isolation, pipe supports, seismic bracing, isolation valves, and forcemain drains;
- installation of a second seal water pump, including seismic bracing on tanks and installation of alarms;
- corrosion protection improvements, including flexible couplings on a buried forcemain adjacent to the West Napa Pump Station building;
- screening and scum removal improvements, including replacements and modifications of bar screens, scum pumps and skimmers; and
- Installation of modern odor control equipment.

This work would primarily occur on NSD owned property, and the improvements would be primarily internal in nature and would not alter or expand the existing footprint of the pump station building or associated site.

1.4.3 Construction Schedule, Staging, and Hauling

Construction Schedule

Construction of the project is expected to begin in 2018 and is conservatively assumed to require approximately 18 months to complete, taking into account time for mobilization, demobilization, and wet weather delays. Construction on weekends or legal and City holidays is not currently anticipated. If such construction were required, it would need to be approved in advance by the City of Napa Public Works Department. The City of Napa has the authority to approve working hours outside of those stated above.

Nighttime construction may be required for portions of the trenchless Highway 29 undercrossing and the Freeway Drive/Kilburn Avenue/Laurel Street trenchless crossing. Nighttime construction may also be required for pipeline construction through some intersections, which may include but not necessarily be limited to the intersection crossings at S. Coombs/Spruce Street, Sycamore Street/S. Jefferson Street, S. Jefferson Street/Old Sonoma Road, Freeway Drive/1st Street, and Old Sonoma Road adjacent to the Napa County Health and Human Services Agency. Anticipated nighttime work hours are assumed to be 7:00 p.m. to 7:00 a.m. Based on the type and extent of trenchless work to be performed, construction could require up to 40 nighttime work periods for the Highway 29 undercrossing, and up to 30 nighttime work periods for the Freeway Drive/Kilburn Avenue/Laurel Street trenchless crossing. For each intersection where nighttime construction is required, pipeline construction could extend up to approximately five nights.

Construction Staging

Prior to construction, the contractor and its subcontractors would mobilize resources to staging areas. This would include transport of construction vehicles and equipment, as well as delivery and storage of construction materials. The contractor may also secure a job site trailer and portable sanitary facilities at certain staging areas.

Several staging areas may be used to store construction materials and equipment during construction. Construction staging within and adjacent to City of Napa road rights-of-way would occur along various portions of the alignment in areas where work was occurring. This type of staging would generally include short-term staging of construction equipment and materials along residential streets where curbside parking is available or on undeveloped properties. Notifications to adjacent residences would be provided in advance of such work and staging, and the contractor would be required to enter into an agreement with property owners for use of private property.

Construction Recycling and Hauling Traffic

In accordance with Chapter 15.32 of the City of Napa Municipal Code (Construction and Demolition Debris Recycling and Diversion), the project contractor would be required to develop and implement a waste reduction and recycling plan that would include measures to divert construction waste from landfills by using recycling, reuse, salvage, and other diversion programs. Materials that could not be reused or composted at local facilities would be disposed of at regional landfills, such as the Redwood Sanitary Landfill in Marin County or the Potrero Hills Landfill in Solano County.

The project requires the installation of approximately 16,000 lineal feet of pipeline. For the purposes of analysis, it is anticipated that the majority of the pipeline installation would generally proceed at a rate of 100 feet per day, with each 100 foot pipeline segment generating up to approximately 75 combined worker vehicle and haul truck trips per day. Accordingly, approximately 12,000 haul truck and worker vehicle trips may be required during the course of construction.

1.4.4 Maintenance and Operation

Following construction, the new trunk sewer conveyance facilities would be put into an operation and maintenance schedule that could include periodic cleanings once or twice per year. Operation and maintenance activities could also include periodic monitoring during or after large storm events. Operation and maintenance of the new trunk sewer conveyance facilities would generate less than one traffic trip per day on average.

The West Napa Pump Station would continue to be operated by an existing SCADA² system. Other operational activities at the West Napa Pump Station would continue to be manned by existing staff and would not result in an increase in vehicle trips or vehicle miles travelled.

1.5 Environmental Protection Actions Incorporated into the Project

The following actions are included as part of the project to reduce or avoid potential adverse effects that could result from construction or operation of the project. Additional mitigation measures are presented in the following analysis sections in Chapter 3. Project and mitigation measures are also included in the Mitigation, Monitoring, and Reporting Program prepared for the project (bound separately).

1.5.1 Environmental Protection Action 1 – Off-alignment Staging Area Constraints

Napa Sanitation District will ensure that off-alignment construction staging areas meet the following qualifications:

- Staging areas will not occur within 100 feet of sensitive receptors. Sensitive receptors may include residences, overnight health care facilities, and schools.
- Staging will not occur where there are jurisdictional wetlands or habitat for special-status species. Prior to designating a staging area, the NSD will ensure that wetland and habitat surveys are conducted by qualified biologists. Staging areas that are entirely paved, compacted, or maintained landscaped areas are not subject to this measure.
- Staging will protect trees.
- Staging will not occur where known archaeological or historic resources have been previously identified. Prior to designating a staging area, the NSD will conduct an archival records search with the Northwest Information Center to identify known archaeological resources within the vicinity of the project facility. Staging areas that are entirely paved and that would not be excavated are not subject to this measure.
- Staging areas located in a floodplain shall not include fueling areas or storage areas for chemicals or hazardous substances between October 1 and April 30.
- Staging will consider the parking needed for public recreational facilities.

1.5.2 Environmental Protection Action 2 – Geotechnical Design

As part of the project design process, the NSD has engaged a California-registered Geotechnical Engineer to conduct a design-level geotechnical study for the project. The NSD will design the project to comply with the site-specific recommendations made in the project's geotechnical report. This will include design in accordance with the seismic and foundation design criteria, as well as site preparation and grading recommendations included in the report. The geotechnical recommendations will be incorporated into the final plans and specifications for the project, and will be implemented during construction.

² SCADA stands for supervisory control and data acquisition and is a system for remote monitoring and control.

1.5.3 Environmental Protection Action 3 – BAAQMD Basic Construction Measures

To limit dust, criteria pollutants, and precursor emissions associated with the construction activity, NSD will include the following Bay Area Air Quality Management District (BAAQMD) recommended Basic Construction Measures in all construction contract specifications for the project:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas and unpaved access roads) shall be watered two times per day;
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered or shall have at least two feet of freeboard;
- All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited;
- All vehicle speeds on unpaved areas shall be limited to 15 miles per hour;
- All paving shall be completed as soon as possible after trenching work is finished;
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points;
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation;
- A publicly visible sign shall be posted with the telephone number and person to contact at NSD regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

1.6 Required Permits or Approvals

NSD approval actions required for the project include project approval by the NSD Board of Directors.

Several additional agencies may also be involved in the consideration of portions of the project. State and local approvals that may be required for the project include the following:

- City of Napa: The project would require an Encroachment Permit from the City of Napa Public Works Department for improvements made within the City right-of-way. The project would require tree removal permits from the City of Napa Community Resources Department for removal of any street trees, and tree removal permits from the City of Napa Tree Advisory Commission for removal of any protected native trees or any trees that have been nominated by the Tree Advisory Commission as significant.
- California Department of Transportation (Caltrans): The project would require a utility encroachment permit from Caltrans District 4 for the pipeline crossing beneath Highway 29 and for a portion of open cut construction at the intersection of 1st Street and Freeway Drive.

- California/Occupational Safety and Health Administration (OSHA): The project would require a Cal/OSHA application for a tunnel classification for the pipeline crossing beneath Highway 29.
- State Water Resources Control Board Division of Financial Assistance: If NSD pursues State Revolving Fund (SRF) funding for the project, the project would require approval of an SRF application and initiation of consultation with applicable federal agencies.
- State Water Resources Control Board Division of Drinking Water: The project would require approvals from the State Water Resources Control Board Division of Drinking Water if portions of the proposed trunk sewer pipeline could not meet a standard 10-foot offset from existing potable water lines.

2. Environmental Factors Potentially Affected

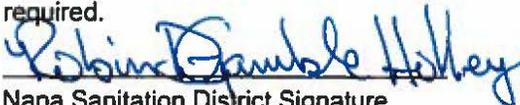
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

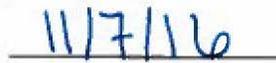
- | | | |
|--|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Agricultural & Forestry Resources | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/>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

DETERMINATION

(To be completed by the Lead Agency) On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.
- I find that although the proposed project could have a significant effect on the environment, there would 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 would 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 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 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.


Napa Sanitation District Signature


Date

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3. Environmental Analysis

3.1 Aesthetics

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?				✓
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c) Substantially degrade the existing visual character or quality of the site and its surroundings?		✓		
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		✓		

a, b) Have a substantial adverse effect on a scenic resources within a state scenic highway or a scenic vista? (No Impact)

A scenic vista is generally considered a view of an area that has remarkable scenery or a natural or cultural resource that is indigenous to the area. No scenic vistas are identified in the City of Napa General Plan, and the project is located on flat land with substantial street trees, so that the project area is not visible from specific vista points. Therefore, no impact on a scenic vista would occur.

The project is not located within or adjacent to an officially designated scenic highway. Highway 121 and Highway 29 in the project area are each eligible to become officially designated scenic highways (Caltrans 2011), however, the pipeline would be located below ground. The external improvements to the West Napa Pump Station would be limited to new landscaping and painting and would not have an adverse visual impact. No impact would occur.

c) Have an adverse effect on visual character or quality? (Less than Significant with Mitigation)

During construction, the presence of machinery, disturbed ground surfaces, and pruned tree canopies would result in short-term changes to localized visual character. Construction areas would be visible from adjacent residences, businesses and from travelers on public roadways. As summarized in the project description, it is anticipated that the proposed trunk sewer would be installed at a rate of approximately 100 linear feet per day. Given this general pipeline installation rate, the majority of construction activities would not impact one particular viewpoint for a substantial portion of time. Given the temporary nature of construction activities, the construction-phase impact on visual character and quality would be less than significant. Construction at the

West Napa Pump Station would be primarily internal; external construction at the pump station (the landscaping, painting and minor modifications to the emergency bypass improvements) would be minor and temporary, and would not adversely affect visual character or quality.

As summarized in the project description, construction activities are expected to require direct removal of approximately five trees on City-owned property located adjacent to the intersection of Old Sonoma Road and South Freeway Drive. The trees that would require removal are non-native incense cedars and are not part of an important landscape element. Removal of the trees would not significantly alter views or create a strong visual contrast given the number and visual mass of trees that would remain in the area. Therefore, the impact of the anticipated tree removals on visual character would be less than significant.

In addition to direct tree removals, trench excavations could encounter the root zones of up to approximately 25 additional trees located along the alignment. Potentially impacted trees include:

- A 36-inch native valley oak located on private property along the northbound side of Browns Valley Road;
- Two London plane trees located adjacent to the southbound lane of Franklin Street;
- Six London plane trees located along Sycamore Street (four adjacent to the eastbound lane and two adjacent to the westbound lane);
- Three London plane trees located adjacent to the northbound lane of South Jefferson Street between Sycamore Street and Old Sonoma Road;
- A western cottonwood tree located near the intersection of Old Sonoma Road and Walnut Street;
- A non-native Raywood ash tree and a non-native incense cedar tree located near the intersection of Old Sonoma Road and South Freeway Drive; and
- A coast redwood, two London plane trees, and four Raywood ash trees located adjacent to the southbound lane of Freeway Drive.

The above-listed trees are not intended to be directly removed during construction, however, because they are located near the proposed excavation limits, the drip line of the trees may be present within the construction zone, and they would be subject to possible damage during construction. If these trees were lost, it could degrade the existing visual character and quality of local streets as seen from public vantage points in the surrounding neighborhood. The impact may be significant.

Following construction, the pipeline would be located below ground and would not impede or alter views. External upgrades to the West Napa Pump Station would consist of landscaping and painting and would not have an adverse effect on visual character or quality. No operational impact would occur.

Mitigation Measure AES-1: Trenching Techniques to Minimize Tree Loss

The NSD shall retain a certified arborist to develop special trenching and pruning techniques to minimize the potential for tree impacts and tree loss along the alignment. The contractor shall implement such techniques. Construction activities within the dripline of trees adjacent to trenches shall be avoided to the extent feasible during construction. Pruning of trees shall

be completed by either a certified arborist or by the contractor under supervision of either an International Society of Arboriculture qualified arborist, American Society of Consulting Arborists consulting arborist, or a qualified horticulturalist. Pruning shall be completed to the minimum degree necessary to accommodate construction vehicles and in a manner that helps preserve tree health. If trees are damaged or lost, trees shall be replaced in accordance with the City of Napa Municipal Code. To the extent allowable, replacement trees shall be planted on-site. The NSD shall ensure that plantings will be monitored annually for five years after project completion to ensure that the replacement planting(s) has developed and that the trees survive.

Mitigation Measure AES-1 would reduce the impact of potential trees loss to a less-than-significant level by minimizing tree removals and replacing any trees lost to reestablish the visual character that the trees help provide.

d) Create a new source of light or glare? (Less than Significant with Mitigation)

Typical anticipated daytime work hours would be 7:00 a.m. to 7:00 p.m., Monday through Friday. As described in the Project Description, nighttime construction may be required for portions of the trenchless Highway 29 undercrossing and the Freeway Drive/Kilburn Avenue/Laurel Street crossing during nighttime hours and for pipeline installation at some intersections. Anticipated nighttime work hours are assumed to be 7:00 p.m. to 7:00 a.m.

Based on the type and extent of trenchless work to be performed, construction could require up to 40 nighttime work periods for the Highway 29 undercrossing, and up to 30 nighttime work periods for the Freeway Drive/Kilburn Avenue/Laurel Street crossing. Pipeline installation at night may include, but not be limited to, the intersection crossings at S. Coombs/Spruce Street, Sycamore Street/S. Jefferson Street, S. Jefferson Street/Old Sonoma Road, Freeway Drive/1st Street, and Old Sonoma Road adjacent to the Napa County Health and Human Services Agency. Pipeline installation at intersections that must be conducted at night may extend for up to approximately five nights at each location.

Lighting would be needed for completion of nighttime work. Residences are located near most of the potential nighttime work locations. Lighting would be temporary in nature and would be located within an existing urban area with existing residential and commercial street lighting. However, in the event that nighttime construction is required, the impact of such lighting on adjacent residences would be significant.

Staging areas would not have nighttime security lighting that would be used continuously. Lighting would be used only when workers need access at night.

Following construction, project pipeline components would be located below ground and would not include new exterior lighting. External improvements at the West Napa Pump Station would not create new sources of substantial light or glare. No operational impact would occur.

Mitigation Measure AES-2: Avoid Glare and Light Trespass from Nighttime Construction Lighting

The NSD shall prepare and implement a Nighttime Construction Lighting Plan for any nighttime work so as to avoid glare that would be a hazard to vehicles and to avoid light trespass onto adjacent residential uses. The lighting plan shall be developed to guide the use

of lighting during project construction in such a way as to effectively light the work area while limiting light spill onto adjoining property. The Plan shall adequately describe the work including, but not be limited to, the layout of lighting equipment necessary for all work to be completed at night and descriptions of hardware, including hoods, louvers, shields or other means to be used to control glare and light trespass onto adjoining property. Lighting systems with flood, spot, or stadium type luminaires shall be aimed downward at the work. The recommendations contained in the Nighttime Construction Lighting Plan shall be incorporated into the final plans and specifications for the project and implemented during construction.

Mitigation Measure AES-2 would reduce the impact of potential nighttime lighting to a less-than-significant level through implementation of a Nighttime Construction Lighting Plan to avoid glare that would be a hazard to vehicles and to avoid light trespass onto adjacent residential uses.

3.2 Agriculture and Forest Resources

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

a-e) Convert Farmland or Forest? (No Impact)

According to the Farmland Mapping and Monitoring Program map for Napa County (CDC 2014), the project would not occur in areas designated as Prime Farmland, Unique Farmland, or Farmland of Statewide importance. In addition, the project is not located on land designated by the California Department of Conservation as being under a Williamson Act contract (CDC 2015), or on land zoned or used for agricultural, forestland, or timberland. Neither construction nor operation of the project would conflict with zoning regulations for agricultural use, forest land, result in the loss of forest land, or result in the conversion of farm or forest land. No impact to agriculture or forest resources would occur.

3.3 Air Quality

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	Less-Than-Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				✓
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			✓	
c) Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			✓	
d) Expose sensitive receptors to substantial pollutant concentrations?			✓	
e) Create objectionable odors affecting a substantial number of people?			✓	

Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan? (No impact)

The BAAQMD Bay Area 2010 Clean Air Plan is the most recently adopted regional air quality plan that pertains to the project (BAAQMD 2010). The Clean Air Plan contains 55 control measures under the following categories: stationary-source measures, mobile-source measures, transportation control measures, land use, and local impact measures and energy and climate measures. Many of these control measures require action on the part of the BAAQMD, the CARB, or local communities, and are not directly related to the actions undertaken for an individual infrastructure project. The project would not prevent the BAAQMD from implementing these actions and none directly apply to the project. Therefore, implementation of the project would not conflict with or obstruct the Bay Area 2010 Clean Air Plan. As a result, no impact would occur.

b, c) Violate any air quality standard or result in a cumulatively considerable net increase of any criteria pollutant for which the region is in non-attainment? (Less than significant)

By its nature, air pollution is largely a cumulative impact, in that individual projects are rarely sufficient in size to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions may contribute to cumulative adverse air quality impacts. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions (BAAQMD 2011).

According to California standards, the San Francisco Bay Area Air Basin (Air Basin) is currently designated as a nonattainment area for suspended particulate matter (PM_{2.5} and PM₁₀) and ozone (BAAQMD 2016). Under national standards, the Air Basin is currently designated as nonattainment for 8-hour ozone precursors, and nonattainment for PM_{2.5}. The San Francisco Bay Area Air Basin (SFBAAB) is in attainment (or unclassified) for all other air pollutants (BAAQMD 2016).

Construction activities are anticipated to take approximately 18 months to complete. The types of air pollutants generated by construction activities are typically nitrogen oxides and particulate matter, such as dust and exhaust. Construction activities could temporarily increase levels of PM_{2.5} and PM₁₀ downwind of construction activity. These are temporary emissions that vary considerably from day-to-day and by the type of equipment and weather. In addition, CO and reactive organic gases are emitted during operation of gas and diesel-powered construction-equipment.

Construction-related air pollutant emissions were estimated for the project using the California Emissions Estimator Model (CalEEMod). The results were then compared to the BAAQMD thresholds of significance for criteria pollutants. As shown in Table 3.3-1 (Construction Air Emissions Associated with Project), the estimated construction-related emissions are less than the thresholds of significance adopted by the BAAQMD. Therefore, the impact from construction related emissions would be less than significant.

In addition, as described in Section 1.5, "Environmental Protection Actions Incorporated into the Project," the project would incorporate the BAAQMD's Basic Construction Measures for fugitive dust.

Table 3.3-1 Construction Air Emissions Associated with Project

Project Construction Emissions	ROG (lbs/day)	NO _x (lbs/day)	PM ₁₀ (lbs/day)	PM _{2.5} (lbs/day)
2018	3.8	38.1	2.9	1.7
2019	2.1	21.3	2.3	1.2
<i>BAAQMD Thresholds</i>	<i>54</i>	<i>54</i>	<i>82</i>	<i>54</i>

Following construction, the project would not result in long-term operational emissions of criteria air pollutants, because it would not include any stationary sources, the pipeline would function via gravity, and the pump station improvements would not increase the maximum flows. Project operation would generate less than one traffic trip per day on average associated with periodic monitoring during or after large storm events. The project would not increase the population or

bring new, permanent employees to the project area. Therefore, project-generated operational emissions would not violate or contribute substantially to an existing or projected air quality violation. This impact would be less than significant.

d) Expose sensitive receptors to substantial pollutant concentrations? (Less than significant)

Sensitive receptors are defined by the BAAQMD as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of sensitive receptors located along the project alignment include schools, child care centers, and residential areas.

Along most of the proposed alignment, installation of the trunk sewer is anticipated to occur at a rate of approximately 100 feet of pipe per day, thus the construction activities would continually be shifting. Because of continuous shifting of the construction activities, prolonged exposure of sensitive receptors to substantial pollutant concentrations would not occur.

The trenchless drilling beneath Highway 29 would be completed over an approximately eight-week period, while the trenchless drilling that may occur beneath Freeway Drive/Kilburn Avenue/Laurel Street would occur over approximately six weeks. Sensitive receptors located near the trenchless construction entry and exit areas include people living in adjacent residential areas and students of Harvest Middle School, which is located along Old Sonoma Road. As described in Section 1.5, "Environmental Protection Actions Incorporated into the project," the project would incorporate the BAAQMD's Basic Construction Measures for fugitive dust, which include minimizing idling times for trucks and equipment to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]), and ensuring that construction equipment is maintained in accordance with manufacturer's specifications. Considering the short exposure of sensitive receptors along the pipeline alignment or tunneling locations (i.e., eight weeks at maximum) to construction-related activities and the implementation of fugitive dust control measures, the project would not result in the exposure of sensitive receptors to substantial pollutant concentrations. Therefore, the construction-related impact would be less than significant.

Following construction, the project would not result in substantial long-term operational emissions of criteria air pollutants or vehicular emissions, because the pipeline would be underground, and there would be no emissions associated with the West Napa Pump Station improvements. Therefore, project operation would not expose nearby sensitive receptors to substantial levels of pollutants. The operation-related impact would be less than significant.

e) Create objectionable odors affecting a substantial number of people? (Less than Significant)

Implementation of the project would not result in any major sources of odor. Although wastewater pipelines convey wastewater, they are not typically a source of odor complaints and are not listed by BAAQMD as a potential odor source (BAAQMD 2011).

Historically, operation of the West Napa Pump Station had resulted in occasional complaints. Such issues were addressed with a recent rehabilitation of the odor control system at the West Napa Pump Station. Because the project would not increase the amount of wastewater pumped at the West Napa Pump Station, and the existing odor control system would stay in place, the impact would be less than significant.

3.4 Biological Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				✓
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				✓
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		✓		
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓

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? (Less than significant with mitigation)

A review of the plant and animal habitats along the proposed project alignment was conducted to determine the potential for any special-status vegetation communities, plants, or animal species to occur within the proposed project area (Jane Valerius Environmental Consulting 2015).

Information on special-status plant species was compiled through a review of the literature and database searches. Database searches for known occurrences of special-status species focused on the Napa U.S. Geologic Service 7.5-minute topographic quadrangle, which provided a three mile radius around the proposed project area. The following sources were reviewed to determine which special-status plant and wildlife species have been documented in the vicinity of the project site:

- California Natural Diversity Database records (CNDDB) (CDFW 2015)
- California Native Plant Society (CNPS) Electronic Inventory records (CNPS 2015)

A reconnaissance-level site visit was also conducted on October 14, 2015 to evaluate on-site and adjacent habitat types. No direct bat roosting or nesting bird surveys were conducted as part of the habitat assessment given the prolonged period of time anticipated to occur before construction begins.

Special-status Plant Species

A total of 18 special-status plant species have been reported as occurring within the Napa 7.5-minute topographic quadrangle. Many species were considered to have no potential to occur either because these species are restricted to areas with habitats that are not present within the study area. Because of the presence of landscaped yards and the fact that the project is located in an urban and developed area, the affected habitats are very limited. No special-status plants are expected to occur. As described in Section 1.5, “Environmental Protection Actions Incorporated into the Project,” staging would not occur where there are habitats for special-status species. No impact to special-status plant species would occur.

Special-status Wildlife Species

Special-status species that have been documented in the vicinity of Napa include, but are not limited to: California freshwater shrimp (*Syncaris pacifica*), steelhead (*Onchorhynchus mykiss irideus*), foothill yellow-legged frog (*Rana boylei*), western pond turtle (recently renamed Pacific pond turtle, *Emys marmorata*), American badger (*Taxidea taxus*), and tricolored blackbird (*Agelaius tricolor*). Suitable habitat for these and other special-status species is not present in the project area.

Potential suitable habitat for one special-status animal species, the pallid bat (*Antrozous pallidus*), was determined to be present in the project area. The pallid bat is a California Species of Special Concern (SSC) species. Day roosts for the pallid bat include hollow trees, rock outcrops, mines, caves, buildings and bridges, with recent research suggesting high reliance on tree roosts. Pallid bats could potentially roost in trees along the project alignment that had appropriate cavities, crevices, and/or exfoliating bark. If pallid bats were present in trees along the alignment, construction noise and/or tree removals would have the potential to impact the species. The impact is considered significant.

Construction noise and tree removal has the potential to impact many bird species which are protected under the Migratory Bird Treaty Act (MBTA). Passerines (perching birds) and raptors (birds of prey) are each protected under the MBTA and Fish and Wildlife Code 3503. Passerines that could potentially nest in trees in the project area include Anna's hummingbird (*Calypte anna*), Bewick's wren (*Thryomanes bewickii*), and bushtit (*Psaltriparus minimus*). Raptors that could potentially nest in trees in the project area include red-shouldered hawk (*Buteo lineatus*) and sharp-shinned hawk (*Accipiter striatus*). If nesting passerines or raptors were present in trees along the alignment, construction noise and/or tree removals would have the potential to impact the species. The impact is considered significant.

Mitigation Measure BIO-1: Prevent Disturbance to Nesting Birds

The NSD or their contractor(s) shall ensure that the following mitigation will be followed in order to avoid or minimize potential impacts to passerines and raptors that may potentially nest in the trees:

- Grading or removal of vegetation or nesting trees should be conducted outside the nesting season, which generally occurs between approximately March 1 and August 15, if feasible. Because some bird species nest in grassy and/or shrubby areas, it would be advantageous to remove any trees or vegetation during the non-nesting season.
- If grading or vegetation removal between March 1 and August 15 is not feasible and groundbreaking must occur within the nesting season, a pre-construction nesting bird (both passerine and raptor) survey of the grasslands and adjacent trees shall be performed by a qualified biologist within seven days prior to ground breaking. If no nesting birds are observed no further action is required and grading shall occur within one week of the survey to prevent disturbance of individual birds that could begin nesting after the survey. Surveys shall be conducted in advance of installation of dewatering wells.
- If active bird nests (either passerine and/or raptor) are observed during the pre-construction survey, a disturbance-free buffer zone shall be established around the nest tree(s) until the young have fledged, as determined by a qualified biologist.
- The radius of the required buffer zone can vary depending on the species, (e.g., 75-100 feet for passerines and 200-300 feet for raptors), with the dimensions of any required buffer zones to be determined by a qualified biologist in consultation with CDFW.
- To delineate the buffer zone around a nesting tree, orange construction fencing shall be placed at the specified radius from the base of the tree within which no machinery or workers shall intrude.
- After the fencing is in place there will be no restrictions on grading or construction activities outside the prescribed buffer zones.

Mitigation Measure BIO-2: Prevent Disturbance of Pallid Bat

Prior to construction, the NSD shall have a Bat Habitat Assessment conducted by a qualified biologist. The Habitat Assessment shall evaluate the trees to be removed that have a breast height diameter greater than 10 inches. The Habitat Assessment shall evaluate the trees for suitable entry points and roost features, and shall provide focused daytime surveys for day-

roosting bats. If a pallid bat species is found, or if suspected day roosts for special-status bats are identified, then the Habitat Assessment shall identify suitable performance measures for avoiding impacts as follows:

(a) Preconstruction Surveys:

- All trees and structures suitable for use by bats shall be surveyed for signs of bats prior to project activities.

(b) Avoidance Measures:

- If bats are discovered during the surveys, then a buffer of 100 to 150 feet shall be maintained.
- The optimal time to remove trees is September 15 through October 15, when young would be capable of flying, and between February 15 to April 1 to avoid hibernating bats and prior to formation of maternity sites.
- If flushing of bats is necessary, it shall be done by a biologist during the non-breeding season from October 1 to March 31. When flushing bats, structures and/or trees shall be removed carefully to avoid harming individuals, and torpid bats given time to completely arouse and fly away.
- During the maternity season from April 1 to September 30, prior to construction, a qualified biologist shall determine if a bat nursery is present at any sites identified as potentially housing bats.
- If an active nursery is present, disturbance of bats shall be avoided until the biologist determines that breeding is complete and young are reared.

With implementation of the Mitigation Measures BIO-1 and BIO-2, potential impacts to special-status bird and bat species would be reduced to a less-than-significant level. In addition, as described in Section 1.5, "Environmental Protection Actions Incorporated into the Project," staging would not occur where there are habitats for special-status species. No impact to special status plant species would occur.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? (No impact)

No riparian habitat or other sensitive natural communities occur along the project alignment or at the tunneling locations or at the West Napa pump station (Jane Valerius Environmental Consulting 2015). The project would be located within the developed footprint of existing road rights-of-way, including the tunneling pit located east and west of Highway 29. Therefore, no impact would result from implementing the project.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? (No impact)

No wetlands or other sensitive habitats are present on the project sites (Jane Valerius Environmental Consulting 2015). Project-related construction and operational activities would not

result in the removal, fill, or hydrologic interruption of any potential jurisdictional waters of the United States. No impact would occur.

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? (No impact)

Wildlife corridors are features that provide connections between two or more areas of habitat that would otherwise be isolated and unusable. Wildlife connectivity in the project area is generally reduced given the presence of established roadways. The project does not cross or interrupt drainages, creeks, or riparian habitats that would be considered substantial wildlife corridors. Therefore, no important wildlife corridors are known in the area, and the proposed project would not create an impediment to wildlife movement. No impact would occur. Refer to impact (a) regarding bird and bat nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Less than significant with mitigation)

As summarized in the project description, overhead and/or side pruning of approximately 90 trees may be required along portions of the alignment.. Pruning of the estimated 90 trees is not expected to impact the long-term tree health or stability of the trees.

To accommodate pipeline installation, the project is anticipated to require direct removal of approximately five trees on City-owned property located adjacent to the intersection of Old Sonoma Road and South Freeway Drive. The trees that would require direct removal are non-native incense cedars and raywood ash located in the vicinity of the proposed tunneling pit for the Highway 29 undercrossing.

In addition to direct tree removals, trench excavations could possibly encounter the root zones of up to approximately 25 trees along the alignment. Potentially impacted trees include:

- A 36-inch native valley oak located on private property along the northbound side of Browns Valley Road;
- Two London plane trees located adjacent to the southbound lane of Franklin Street;
- Six London plane trees located along Sycamore Street (four adjacent to the eastbound lane and two adjacent to the westbound lane);
- Three London plane trees located adjacent to the northbound lane of South Jefferson Street between Sycamore Street and Old Sonoma Road;
- A western cottonwood tree located near the intersection of Old Sonoma Road and Walnut Street;
- A non-native Raywood ash tree and a non-native incense cedar tree located near the intersection of Old Sonoma Road and South Freeway Drive; and
- A coast redwood, two London plane trees, and four Raywood ash trees located adjacent to the southbound lane of Freeway Drive.

The above-listed trees are not intended to be directly removed during construction, however, because they are located near the proposed excavation limits, the drip line of the trees may be present within the construction zone, and they would be subject to possible damage during

construction. The direct and potential indirect loss of trees along the alignment is considered a significant impact requiring consistency with City of Napa tree preservation ordinances.

Mitigation Measure AES-1: Trenching Techniques to Minimize Tree Loss

The NSD shall retain a certified arborist to develop special trenching and pruning techniques to minimize the potential for tree impacts and tree loss along the alignment. The contractor shall implement such techniques. Construction activities within the dripline of trees adjacent to trenches shall be avoided to the extent feasible during construction. Pruning of trees shall be completed by either a certified arborist or by the contractor under supervision of either an International Society of Arboriculture qualified arborist, American Society of Consulting Arborists consulting arborist, or a qualified horticulturalist. Pruning shall be completed to the minimum degree necessary to accommodate construction vehicles and in a manner that helps preserve tree health. If trees are damaged or lost, trees shall be replaced in accordance with the City of Napa Municipal Code. To the extent allowable, replacement trees shall be planted in the vicinity of the tree to be removed. The NSD shall ensure that plantings are monitored annually for five years after project completion to ensure that the replacement planting(s) has developed and that the trees survive.

Mitigation Measure AES-1 would reduce impacts to trees to less than significant, because impacts would be avoided where possible, reduced as much as feasible, and any trees that are lost would be replaced in accordance with the City of Napa Municipal Code.

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

The project is not within the boundaries of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. As such, the project would not conflict with the provisions of an adopted habitat conservation plan. No impact would occur.

3.5 Cultural Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?		✓		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		✓		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		
d) Disturb any human remains, including those interred outside of formal cemeteries?		✓		
e) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?		✓		

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? (Less than Significant with Mitigation)

The CEQA Guidelines define a historical resource as: (1) a resource listed in the California Register of Historical Resources; (2) a resource included in a local register of historical resources, as defined in the California Public Resources Code (PRC) Section 5020.1(k), or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (3) any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the lead agency’s determination is supported by substantial evidence in light of the whole record.

A portion of the proposed trunk sewer alignment in Old Sonoma Road would be located adjacent to the Napa County Infirmary Historic District. A portion of the trunk sewer alignment in South Coombs Street would be located in the vicinity of the Sawyer Tannery. Neither construction nor operation of the project would impact the Napa County Infirmary Historic District or the Sawyer Tannery, and construction activities would not require the removal of any adjacent street trees or other vegetation in the vicinity of the properties. The impact would be less than significant.

Portions of the proposed trunk sewer alignment in Old Sonoma Road, South Jefferson Street, Sycamore Street, Franklin Street, Spruce Street, and South Coombs Street would be located adjacent to residential properties listed in the City of Napa’s historic resources inventory. There are several street trees that are located adjacent to some of the listed residential properties on South Jefferson Street, the 1400 and 1600 blocks of Sycamore Street, and a portion of Franklin Street.

The street trees located adjacent to the listed residential properties are not intended to be directly removed during construction. However, because several of the street trees are located near the proposed excavation limits, trench excavations may potentially encounter root zones of certain trees, which could impact the overall health or stability of a tree. If mature street trees located adjacent to properties listed in the City of Napa's historic resources list were impacted, the contributing landscape elements of a listed historical resource could be negatively affected. The impact may be significant.

Mitigation Measure CR-1: Avoid Loss of Street Trees on Historic Properties

The NSD shall avoid loss of street trees over 10" in diameter that occur along the pipeline alignment on the frontage of historic properties listed on the City of Napa's Combined Historic Resources List. Avoidance can be achieved by mitigating the impact of trenching near the tree, using alternative equipment, by moving the pipeline alignment, or other effective measures.

Implementation of Mitigation Measure CR-1 would reduce significant impacts to less-than-significant levels by protecting and preserving mature trees located on or adjacent to listed historic properties.

b,e) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5, or a tribal cultural resource as defined in Public Resources Code 21074? (Less than Significant with Mitigation)

Archaeological Resources

No known archaeological sites have been documented within or immediately adjacent to the project alignment (SSU ASC 2015). Three historic-era resources and one prehistoric resource have been identified within 1,000 feet of the alignment. The potential exists to encounter as-of-yet unknown archaeological materials along the alignment during project-related construction activities. If such resources were to represent "unique archaeological resources" as defined by CEQA, any substantial change to or destruction of these resources would be a potentially significant impact.

Tribal Cultural Resources

CEQA requires lead agencies to determine if a proposed project would have a significant effect on tribal cultural resources. The CEQA Guidelines define tribal cultural resources as: (1) a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American Tribe that is listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or (2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant according to the historical register criteria in Public Resources Code Section 5024.1(c), and considering the significance of the resource to a California Native American tribe.

A records search of the Native American Heritage Commission (NAHC) Sacred Lands File was conducted in October 2015. The records search conducted did not identify the presence of Native American cultural resources in the project area (NAHC 2015).

The Sonoma State University Anthropological Studies Center notified the California Native American tribes culturally affiliated with the project area in writing on November 3, 2015. A letter was issued by the Yocha Dehe Cultural Resources Department on March 15, 2016, requesting a

meeting with the NSD and project details (Yocha Dehe Cultural Resources 2016a). In response, the NSD submitted a cultural resources study and project-related information to the Yocha Dehe Wintun Nation on May 12, 2016. A meeting between NSD staff and Mr. James Sarmiento and Mr. Duke Ellington from the Yocha Dehe Wintun Nation was held on July 29, 2016. A subsequent letter was issued by the Yocha Dehe Cultural Resources Department on October 18, 2016, stating that the project could impact known archaeological/cultural sites and recommending cultural monitoring during project-related ground disturbance (Yocha Dehe Cultural Resources 2016b). As documented above, no known archaeological sites have been documented within or immediately adjacent to the project alignment (SSU ASC 2015), however, the potential exists to encounter as-of-yet unknown archaeological materials along the alignment during project-related construction activities. If such resources were to represent “tribal cultural resources” as defined by CEQA, any substantial change to or destruction of these resources would be a potentially significant impact.

Mitigation Measure CR-2: Protect Archaeological and Tribal Cultural Resources during Construction Activities

In the event that any subsurface archaeological features or deposits, including locally darkened soil, or tribal cultural resources are discovered during construction-related earth-moving activities, the NSD shall halt all ground-disturbing activity in the vicinity of the resources and a qualified professional archaeologist shall be retained to evaluate the find and the appropriate tribal representative(s) shall be notified. If the find is determined to constitute either an historical resource or a unique archaeological resource per CEQA Guidelines sections 15064.5, the archaeologist shall develop appropriate mitigation to protect the integrity of the resource and ensure that no additional resources are affected. Mitigation could include but would not necessarily be limited to avoidance, preservation in place, archival research, subsurface testing, or excavation and data recovery.

Mitigation Measure CR-3: Coordinate with Yocha Dehe Wintun Nation Tribe regarding Tribal Cultural Resources

The NSD shall coordinate with the Yocha Dehe Wintun Nation Tribe regarding their recommendation for monitoring of tribal cultural resources during construction.

Implementation of Mitigation Measure CR-2 would reduce significant impacts to less-than-significant levels by protecting, preserving, or recovering any cultural resources identified during construction, including historical resources, affected by project construction.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Less than significant with mitigation)

Project excavations are likely to encounter roadway pavement sections, utility excavation backfill, historic drainageway crossings, and a variety of Holocene-age alluvial fan and stream terrace deposits and surface soils. The deepest excavations anticipated for construction of the project would be associated with establishment of microtunneling pits for the Highway 29 undercrossing, which could require excavating down to approximately 25 feet below the ground surface. Pipelines would be installed at depths ranging from approximately 8 to 19 feet below ground surface. Because subsurface excavations for the project could extend deeper than artificial fills and previously disturbed soils, the impact to a unique paleontological resource is considered potentially significant.

Mitigation Measure CR-5: Protect Paleontological Resources during Construction Activities

In the event that any vertebrate fossils are encountered during construction, all ground disturbing activities within 50 feet of the find shall be temporarily halted, and a qualified paleontologist shall be notified to document the discovery as needed, to evaluate the potential resource, and to assess the nature and significance of the find. Based on the scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the material, if it is determined that the find cannot be avoided. The paleontologist shall make recommendations for any necessary treatment that is consistent with currently accepted scientific practices. Any fossils collected from the area shall then be deposited in an accredited and permanent scientific institution where they will be properly curated and preserved.

Mitigation Measure CR-5 would reduce the impact of construction activities on potentially unknown paleontological resources to a less-than-significant level by addressing discovery of unanticipated buried resources and preserving and/or recording those resources consistent with appropriate laws and requirements.

d) Disturb any human remains, including those interred outside of formal cemeteries? (Less than significant with mitigation)

Based on documentary research, no evidence suggests that any prehistoric or historic-era marked or un-marked human interments are present within or in the immediate vicinity of the project alignment. It is unlikely that undiscovered human remains are present within the construction areas given that the project areas have been disturbed by previous development. However, the possibility of encountering human remains during construction cannot be completely discounted, therefore, the impact related to the potential disturbance or damage of previously undiscovered human remains, if present, is considered potentially significant.

Mitigation Measure CR-6: Protect Human Remains if Encountered during Construction

The NSD shall immediately notify the Napa County Coroner should human remains, associated grave goods, or items of cultural patrimony be encountered during construction, and the following procedures shall be followed as required by Public Resources Code § 5097.9 and Health and Safety Code § 7050.5. In the event of the coroner's determination that the human remains are Native American, notification of the Native American Heritage Commission, which would appoint a Most Likely Descendant (MLD). A qualified archaeologist, the NSD and the MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of any human remains and associated or unassociated funerary objects. The agreement would take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, and final disposition of the human remains and associated or unassociated funerary objects.

Mitigation Measure CR-6 would reduce the impact of construction activities on potentially unknown human remains to a less-than-significant level by addressing discovery of unanticipated remains, associated grave goods, or items of cultural patrimony consistent with appropriate laws and requirements.

3.6 Geology and Soils

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

a, 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. (Less than significant)

The Alquist-Priolo Act (Public Resources Code Sections 2621–2630) was passed in 1972 to mitigate the hazard of surface faulting to structures designed for human occupancy. The purpose of

the Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The project does not include structures designed for human occupancy. Additionally, the proposed alignment does not cross an active Alquist-Priolo fault mapped by the California Geological Survey, and no surface rupture across the proposed alignment was documented during and as a result of the August 24, 2014, South Napa earthquake.

Despite the absence of documented surface rupture across the proposed alignment, the geotechnical report prepared for the project indicates that there is evidence suggestive of possible near-surface fault displacement across the proposed alignment along Browns Valley Road near Robinson Lane.

As described in Section 1.5, “Environmental Protection Actions Incorporated into the Project,” the project would be designed and constructed in conformance with the site-specific specific recommendations contained in the design-level geotechnical investigation report prepared for the project (McMillen Jacobs Associates 2016) and any subsequent project-related geotechnical reports. This would include design in accordance with project-specific seismic design criteria and the use of flexible pipe in place of jointed rigid pipe or other equally effective measures. Therefore, the project’s fault rupture related impacts would be less than significant.

a.ii) Strong seismic ground shaking? (Less than significant)

The project would be subject to ground shaking during earthquakes on the West Napa fault and other active regional faults. The anticipated peak ground acceleration along the alignment, based on 10% probability of exceedance in 50 years, is 0.69g. Damage that is expected from ground acceleration to this level includes broken underground pipes. (McMillen Jacobs Associates 2016).

As described in Section 1.5, “Environmental Protection Actions Incorporated into the Project,” the project would be designed and constructed in conformance with the site-specific specific recommendations contained in the design-level geotechnical investigation report prepared for the project (McMillen Jacobs Associates 2016) and any subsequent project-related geotechnical reports. This would include design in accordance with project-specific seismic design criteria. Therefore, the project’s seismic hazard impacts would be less than significant.

a.iii) Seismic Related Liquefaction (Less than significant)

No sites of known liquefaction ground effects from the South Napa earthquake, and/or any other historic earthquake, are known to exist along the alignment. However, both ends of the proposed alignment are in areas of moderate-to-high and high areas of liquefaction susceptibility. Most of the central portion of the proposed alignment is in areas that vary from very low to low-to-moderate liquefaction susceptibility. Soils encountered in project test borings generally classify as California Building Code Site Class D, and include layers of saturated sands below groundwater with potential for liquefaction. (McMillen Jacobs Associates 2016).

As described in Section 1.5, “Environmental Protection Actions Incorporated into the Project,” the project would be designed and constructed in conformance with the site-specific specific recommendations contained in the design-level geotechnical investigation report prepared for the project (McMillen Jacobs Associates 2016) and any subsequent project-related geotechnical reports. This would include design in accordance with recommendations for ground improvement and pipe bedding and backfill to address liquefiable soils. Therefore, the project’s liquefaction related impacts would be less than significant.

a, iv) Landslides? (No impact)

The project is located on relatively flat land and would not be located within an area of mapped potential landslides (USGS 1997). During construction, the new trunk sewer pipeline trench would be dug within land that is relatively flat, gently decreasing in elevation from west to east. Following construction, project components would not be located within areas of potential landslides, and would be located below ground. No landslide related impact would occur.

b) Result in substantial soil erosion or the loss of topsoil? (Less than significant)

Areas to be disturbed during construction would consist predominantly of hardscapes and soils that have been highly altered from their original, natural state. As a result, the project would result in little disturbance to native soils. The project would require compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (Order No. 2009-0009, as amended by Order No. 2010-0014), which include best management practices to prevent soil erosion. Compliance with the NPDES permit requirements would further ensure that potential impacts from soil erosion or loss of topsoil during construction would be less than significant.

Following construction, the project would not result in soil erosion or loss of topsoil, as disturbed areas would be restored to general pre-construction conditions and no additional ground disturbance would occur. Therefore, no operational impact would occur.

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? (Less than significant)

Project excavations are likely to encounter roadway pavement sections, utility excavation backfill, historic drainageway crossings, and a variety of alluvial fan and stream terrace deposits and surface soils. Soils and fills with fast-raveling behavior may be encountered along the planned alignment, including the backfills associated with historic drainageways and utility excavations. Such soils would have little to no stand-up time in unshored vertical excavation and could produce large groundwater inflows. As described above under item "a.iii," soils encountered in project test borings include layers of saturated sands below groundwater with potential for liquefaction. (McMillen Jacobs Associates 2016).

As described in Section 1.5, "Environmental Protection Actions Incorporated into the Project," the NSD would require that the project is designed and constructed in conformance with the site-specific specific recommendations contained in the design-level geotechnical investigation report prepared for the project (McMillen Jacobs Associates 2016) and any subsequent project-related geotechnical reports. This would include design in accordance with recommendations for dewatering, shoring, temporary excavations, ground improvement, trenchless reaches, pipe bedding and backfill, trench dams, pipeline and backfill settlement, vertical loads on pipe, composite modulus of soil reaction, construction vibrations, and roadway pavement replacement. Therefore, the project's unstable soils related impacts would be less than significant.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? (Less than significant)

Project excavations would likely encounter roadway pavement sections, utility excavation backfill, historic drainageway crossings, and a variety of alluvial fan and stream terrace deposits and surface soils, including clay-rich soils in portions of the planned alignment which may exhibit expansion or shrinkage.

As described in Section 1.5, “Environmental Protection Actions Incorporated into the Project,” the project would be designed and constructed in conformance with the site-specific specific recommendations contained in the design-level geotechnical investigation report prepared for the project (McMillen Jacobs Associates 2016) and any subsequent project-related geotechnical reports. This would include design in accordance with recommendations for ground improvement and pipe bedding and backfill. Therefore, the project’s expansive soils related impacts would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? (No impact)

The project would not involve the use of septic tanks or other alternative wastewater disposal systems. Therefore, no impact would occur.

3.7 Greenhouse Gas Emissions

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

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

Project construction activities would result in a temporary increase in greenhouse gas emissions, primarily in the form of carbon dioxide from exhaust emissions associated with haul trucks, construction worker commute vehicles, and construction equipment. There is currently no applicable federal, State, or local significance threshold pertaining to construction-related greenhouse gas emissions, and the BAAQMD CEQA Guidelines do not include screening criteria or significance thresholds for construction related greenhouse gas emissions. Therefore, given the temporary nature of the construction related emissions, the impact would be less than significant.

The BAAQMD CEQA Guidelines contain the following operational thresholds for greenhouse gas emissions: compliance with a Qualified Greenhouse Gas Reduction Strategy; or 1,100 metric tons (MT) of CO₂e per year; or 4.6 MT CO₂e per service population (residents plus employees) per year. The BAAQMD has also established a significance threshold of 10,000 metric tons per year for operation-related greenhouse gas emissions from stationary sources. Following construction, the project would not result in a permanent increase in the amount of electricity used given that the new pipeline would convey wastewater via gravity, and the maximum flow rate pumped at the West Napa Pump Station would not change. Additionally, the project would not result in a new stationary source of greenhouse gas emissions. The project would not increase the population or bring new, permanent employees to the project area. Project operation would generate less than one traffic trip per day on average associated with periodic monitoring during or after large storm events. Therefore, project-generated operational greenhouse emissions would be very small, and the impact would be less than significant.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (No impact)

The project is not located within a jurisdiction covered by an adopted Climate Action Plan or other qualified greenhouse reduction strategy. Additionally, the project would not conflict with any local policies adopted for the purpose of reducing greenhouse gas emissions in the City of Napa General Plan.

The *Climate Change Scoping Plan* released by the California Air Resources Board provided strategies for meeting the near-term 2020 greenhouse gas emission reduction goals in Assembly Bill (AB) 32. The *First Update to the Climate Change Scoping Plan* provides recommendations for establishing a mid-term emissions limit that aligns with the long-term (2050) goals of Executive Order S-3-05, which consists of reducing greenhouse gas emissions to 80 percent below 1990 levels. The recommendations cover the energy, transportation, agriculture, water, waste management, natural and working lands, short-lived climate pollutants, green building, and cap-and-trade sectors, and are to be implemented by a variety of State agencies. Although the project may benefit from implementation of some of the state-level regulations and policies that will be implemented, it would not conflict with this statewide policy document. The recommended next steps in the *First Update Climate Change Scoping Plan* are broad policy and regulatory initiatives that will be implemented at the State level and do not relate to the construction and operation of smaller individual infrastructure projects such as the project. No impact would occur.

3.8 Hazards and Hazardous Materials

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			✓	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			✓	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		✓		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				✓

a,b) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or upset and accident conditions? (Less than significant)

Construction activities would involve the use of hazardous materials, such as fuels, lubricants, paints and solvents. These materials are commonly used during construction, are not acutely hazardous and would be used in small quantities. Regular transport of such materials to and from the project alignment during construction could result in an incremental increase in the potential for accidents. However, numerous laws and regulations ensure the safe transportation, use, storage and disposal of hazardous materials. For example, Caltrans and the California Highway Patrol regulate the transportation of hazardous materials and wastes, including container types and packaging requirements, as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers.

Worker safety regulations cover hazards related to the prevention of exposure to hazardous materials and a release to the environment from hazardous materials use. The California Division of Occupational Safety and Health (Cal-OSHA) also enforces hazard communication program regulations, which contain worker safety training and hazard information requirements, such as procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees. Because contractors would be required to comply with existing and future hazardous materials laws and regulations covering the transport, use and disposal of hazardous materials, the impacts related to hazardous materials used during project construction would be less than significant.

The project alignment is not located in an area mapped as likely to contain naturally occurring asbestos (CDC 2000). Therefore, naturally occurring asbestos is not anticipated to be encountered during construction activities.

Following construction, operation of the project would not result in the need for new hazardous materials that would need to be transported, used, or disposed, and would not alter wastewater characteristics or increase wastewater flows. Following completion, the project would reduce the potential for upset and accident conditions because the new trunk sewer would serve to alleviate surcharging in existing sewers, reduce the extent of sewer replacement projects needed in downtown Napa and west Napa, and alleviate operation and maintenance issues at the West Napa Pump Station. No impact would occur.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (Less than significant)

The project alignment would be located within one-quarter mile of schools, including Harvest Middle School and River School located along Old Sonoma Road. Project construction activities are assumed to include the use of hazardous materials such as fuels, lubricants, degreasers, paints, and solvents. These materials are commonly used during construction, are not acutely hazardous, and would be used in small quantities. Numerous laws and regulations ensure the safe transportation, use, storage, and disposal of hazardous materials (see Impact a & b above). Although construction activities could result in the inadvertent release of small quantities of hazardous construction chemicals, a spill or release at a construction area is not expected to

endanger individuals at nearby schools given the nature of the materials and the small quantities that would be used. Therefore, because NSD and their contractors would be required to comply with existing and future hazardous materials laws and regulations covering the transport, use, and disposal of hazardous materials, and because of the nature and quantity of the hazardous materials to be potentially used by the project, the impact related to the use of hazardous materials during construction within one-quarter mile of a school would be less than significant.

Following construction, the transport of hazardous materials required for operation and maintenance of the pipeline and the West Napa Pump Station would be required to comply with all applicable City and other regulations. Because NSD would be required to comply with all applicable regulations regarding hazardous waste transport, handling, and use, impacts related to transport or use of hazardous materials in proximity to schools would be less than significant. No mitigation is required.

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? (Less than Significant with Mitigation)

The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List." A search of the Cortese List was completed to determine if any known hazardous waste sites have been recorded on or adjacent to the project alignment.

The West Napa Pump Station site is listed in the Leaking Underground Storage Tank database. The case was closed in 1991 and due to the age of the case there is no online documentation of site conditions, locations of impacts to soil and groundwater, and depth to groundwater below the surface. In addition, several adjoining properties along the planned trunk sewer alignment are known to have had releases of hazardous substances or petroleum products associated with historical uses. Such adjoining uses include gasoline stations along Browns Valley Road, Laurel Street, and South Coombs Street; a former auto care station on 1st Street; a car wash facility on Freeway Drive; and a former tannery along South Coombs Street. In the event that utility trenching and shoring excavations encounter residual concentrations of hydrocarbons or other hazardous materials in the soil or groundwater, the impact is considered significant.

Mitigation Measure HAZ-1: Handling and Disposal of Hazardous Wastes

The NSD and its contractor shall prepare and implement a Soil and Groundwater Management Plan for excavation and dewatering activities. Elements of the Soil and Groundwater Management Plan shall include, but would not necessarily be limited to, the following:

- Measures to address hazardous materials and other worker health and safety issues during construction, including the specific level of protection required for construction workers. This shall include preparation of a site-specific health and safety plan in accordance with federal OSHA regulations (29 CFR 1910.120) and Cal-OSHA regulations (8 CCR Title 8, Section 5192) to address worker health and safety issues during construction.
- Monitoring of excavation activities in the vicinity of former underground storage tank sites for soil and groundwater contamination. Monitoring shall include, at minimum, visual and

organic vapor monitoring by personnel with appropriate hazardous materials training, including 40 hours of Hazardous Waste Operations and Emergency Response (HAZWOPER) training. If visual or organic vapor monitoring indicates signs of suspected contaminated soil, then soil and groundwater samples shall be collected and analyzed to characterize soil and water quality.

- In the vicinity of hazardous materials/waste release sites, groundwater brought to the surface as a result of construction dewatering shall be handled in a manner appropriate to the construction-related permits for dewatering. If contamination is suspected or noted during the construction phase, then the groundwater shall be containerized and analyzed for contamination by a laboratory, certified by the California Environmental Protection Agency (CalEPA) Environmental Laboratory Accreditation Program (ELAP), using United States Environmental Protection Agency (USEPA)-approved analytical methods. Where contaminated groundwater is encountered, precautions shall be taken to assure that the installation of piping or other construction activities do not further disperse contamination.
- All potentially contaminated materials encountered during Project construction activities shall be evaluated in the context of applicable local, state and federal regulations and/or guidelines governing hazardous waste. All materials deemed to be hazardous shall be remediated and/or disposed of following applicable regulatory agency regulations and/or guidelines. Disposal sites for both remediated and non-remediated soils shall be identified prior to beginning construction. Management of these sites shall be documented in a Material Management Plan acceptable to applicable agencies. All evaluation, remediation, treatment, and/or disposal of hazardous waste shall be supervised and documented by qualified hazardous waste personnel.

Implementation of Mitigation Measure HAZ-1 would reduce the potential for a hazardous waste-related impact from former potentially contaminated sites to a less-than-significant level, because it would require the proper handling and disposal of hazardous wastes per applicable local, state and federal regulations and/or guidelines.

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

The project is not located within an area covered by an airport land use plan or within two miles of a public or private airport. Therefore, no potential safety hazards associated with airports would occur.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (No Impact)

Construction activities would primarily occur within the public right-of-way, including travel lanes and parking lanes on City of Napa streets. The City of Napa has not designated specific roadways as evacuation routes. Construction activities would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Similarly, operation of the project would not impair or interfere with an emergency response plan or emergency evacuation plan. No impact would occur.

- h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? (No impact)**

The project alignment is located on urban land in a non-fire hazard severity zone (CAL FIRE 2008). Therefore, no wildland fire impact would occur.

3.9 Hydrology and Water Quality

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?		✓		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			✓	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off- site?				✓
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?				✓
e) 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?				✓
f) Otherwise substantially degrade water quality?				✓
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				✓
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				✓

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				✓
j) Inundation by seiche, tsunami, or mudflow?				✓

a) Violate any water quality standards or waste discharge requirements? (Less than significant with mitigation)

Water quality standards and objectives are achieved primarily through the establishment of NPDES permits and waste discharge requirements. Therefore, to evaluate whether construction or operation of the project would result in a violation of water quality standards or waste discharge requirements, project compliance with potentially applicable NPDES permits or waste discharge requirements is evaluated.

State Water Resources Control Board NPDES Order No. 2009-0009, as amended by Order No. 2012-0006, applies to public and private construction projects that include one or more acres of soil disturbance. Construction of the project would disturb more than one acre of land and has the potential to degrade water quality as a result of erosion caused by earthmoving activities during construction or the accidental release of hazardous construction chemicals. The majority of the new pipeline would be installed using open-trench construction methods. Exposed soil from stockpiles, excavated areas, and other areas where ground cover would be removed could be transported elsewhere by wind or water. If not properly managed, this could increase sediment loads in receiving water bodies, thereby adversely affecting water quality. Microtunneling would be required to install the casing beneath Highway 29. Microtunneling employs the use of a drilling fluid to transport the excavated cuttings (slurry) back to a separation plant for cleaning and reuse as drilling fluid. If not properly managed, drilling fluids could reach receiving water bodies, thereby adversely affecting water quality. Construction of the project would also require temporary groundwater dewatering. Often, groundwater generated during dewatering activities is relatively clean, but contains elevated levels of sediment and turbidity. In addition, several adjoining properties along the planned trunk sewer alignment are known to have had releases of hazardous substances or petroleum products associated with historical uses. Construction activities could, therefore, encounter contaminated water, and may have a significant overall impact on water quality.

As part of its stormwater NPDES permit and pollution prevention program, the City of Napa requires incorporation of low impact development measures in accordance with the Bay Area Stormwater Management Agencies Association (BASMAA) Post-Construction Manual (BASMAA 2014). The BASMAA Post-Construction Manual requirements apply to linear utility projects that create 5,000 square feet or more of newly constructed, contiguous impervious surface. The BASMAA Post-Construction Manual requirements exclude trenching, excavation, and resurfacing associated with linear underground projects, pavement grinding and resurfacing of existing roadways, and construction of new sidewalks pedestrian ramps and bike lanes on existing

roadways. Because the project would not result in the construction of new non-excluded contiguous impervious areas, the project would not be required to incorporate low impact development facilities into the design. Following construction, the project would not result in a new point discharge, and no other applicable waste discharge requirements are anticipated to apply to the project. No operational impact would occur.

Mitigation Measure HWQ-1: Manage Construction Storm Water

The NSD and/or its contractor shall obtain coverage under State Water Resources Control Board Order No. 2009-0009-DWQ, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities, as amended by Order No. 2012-0006. The NSD shall submit permit registration documents (notice of intent, risk assessment, site maps, Storm Water Pollution Prevention Plan, annual fee, and certifications) to the State Water Resources Control Board. The Storm Water Pollution Prevention Plan shall address pollutant sources, drilling fluids, non-storm water discharges resulting from construction dewatering, best management practices, and other requirements specified in the above-mentioned Order. The Storm Water Pollution Prevention Plan shall also include dust control practices to prevent wind erosion, sediment tracking, and dust generation by construction equipment. A Qualified Storm Water Pollution Prevention Plan Practitioner shall oversee implementation of the Plan, including visual inspections, sampling and analysis, and ensuring overall compliance.

Mitigation Measure HAZ-1: Handling and Disposal of Hazardous Wastes

For a description of Mitigation Measure HAZ-1, please refer to Section 3.8, impact “d”.

Mitigation Measure HWQ-1 and HAZ-1 would reduce potential water quality impacts during project construction activities to a less-than-significant level by requiring measures to control erosion and sedimentation of receiving water bodies and minimize the risk of hazardous materials releases to surface water bodies. Compliance with the requirements of the NPDES General Permit for Storm Water Discharges Associated with Construction Activity would be required. As a result, the potential impact on water quality would be less than significant with mitigation.

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? (Less than significant)**

Construction of the project would require temporary groundwater dewatering to create reasonably dry work areas. Dewatering methods will vary along the planned alignment to account for varying groundwater levels and excavation depths. Dewatering wells would be constructed at intervals along the alignment to draw down the groundwater level to a minimum of three feet below and beyond the trench excavation bottom and sidewalls. For the trenchless launching and receiving shafts on either side of Highway 29 and near the intersection of Freeway Drive and Kilburn/Laurel Avenues, dewatering wells may be used, or the shafts would be designed with a water-tight shoring system. The deepest excavations anticipated for construction would be associated with trenchless shafts which could require dewatering down to approximately 28 feet below the ground surface. Along other portions of the alignment, dewatering could be required down to approximately 10 to 22

feet below the ground surface. Such temporary dewatering would have an effect on localized water levels in the immediate vicinity of an excavation area. However, because pipeline installation would proceed at 100 feet per day on average, construction activities would continually be shifting. Because of continuous shifting of the construction activities, prolonged lowering of the groundwater levels would not occur. Therefore, no substantial deficit in aquifer volume or well interference would be expected to occur. The construction-related impact on groundwater levels would be less than significant.

Following construction, the project would not utilize groundwater and would not result in an increase in population or employment that would indirectly increase groundwater demand. Therefore, the project would not create a deficit in aquifer volume or a lowering of water levels. In addition, the project would not result in an increase in impervious areas, as the pipeline would be underground and the pump station footprint would not increase, and therefore, the project would not interfere with groundwater recharge. No operational impact would occur.

c,d,e,f) Substantially alter the existing drainage pattern resulting in substantial erosion or siltation or flooding, 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 on- or off- site, or degrade water quality? (No impact)

Project improvements would be located primarily within existing roadways and inside the existing West Napa Pump Station. Areas disturbed during construction would be generally restored to pre-construction conditions, and the project would not result in an increase in new impervious surfaces. The project would not result in a change to drainage patterns, would not alter the course of a stream or river, would not increase surface runoff, or create substantial additional sources of polluted runoff. No impact would occur.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (No impact)

The project does not include the construction of new homes and would not indirectly induce housing growth as it would not extend infrastructure into new areas and would not increase the overall capacity of the sewer system or the treatment capacity of the NSD Soscol Water Recycling Facility. Therefore, this evaluation criterion is not applicable to the project. No impact would occur.

h,i) Place within a 100-year flood hazard area structures which would impede or redirect flood flows or expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? (No impact)

The Federal Emergency Management Agency (FEMA) issues Flood Insurance Rate Maps identifying land areas that are subject to flooding. According to local Flood Insurance Rate Maps, the West Napa Pump Station and the portion of the planned alignment along South Coombs Street, Spruce Street, Franklin Street, and Sycamore Street are located within a 100-year flood hazard area (FEMA 2010).

The improvements to the West Napa Pump Station would not alter or expand the existing footprint of the pump station building. The new gravity trunk sewer pipeline would be located underground and, following construction, temporarily impacted areas would be restored to general pre-existing

conditions. Therefore, even though the West Napa Pump Station and portions of the pipeline would be located within a 100-year floodplain, the proposed improvements would not reduce flood storage capacity, impede or redirect flood flows, or expose people or structures to a significant risk involving flooding. No impact would occur.

j) Inundation by seiche, tsunami, or mudflow? (No impact)

The project is not located adjacent to an isolated body of water that may be affected by a seiche, is not located within a tsunami inundation area based on mapping prepared by the California Emergency Management Agency (Cal EMA 2009), and is not located along a ridgeline or hillside susceptible to mudflows. As a result, the proposed project would not be at risk from inundation by seiche, tsunami, or mudflow. No impact would occur.

3.10 Land Use and Planning

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?				✓
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				✓
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				✓

a) Physically divide an established community? (No impact)

The project would involve construction and operation of a new gravity trunk sewer pipeline and improvements to the West Napa Pump Station. The pipeline would be underground, and the pump station improvements would be located at the site of the existing pump station. These activities would not divide any of the existing neighborhoods or the community as a whole. No impact would occur.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? (No impact)

Applicable land use plans include the City of Napa General Plan. Because the project is proposed by the NSD for public health purposes, the State of California exempts the NSD from complying with the City's zoning and building codes. Specific City of Napa General Plan policies adopted for the purpose of avoiding environmental effects are evaluated in this document under the corresponding issue areas; for example, policies related to biological resources are evaluated in Section 3.4 Biological Resources.

The project alignment goes through many different General Plan Land Use categories and is primarily located within public rights-of-way. Project activities would not permanently alter the existing land uses or their designations, and would not introduce new land uses or land use designations; therefore, no conflict with applicable land use plans, policies, or regulation(s) would occur.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan? (No impact)

There are no adopted habitat conservation plans or natural community conservation plans in or near the project area. Therefore, implementation of the project would have no impact related to applicable habitat conservation plans or natural community conservation plans.

3.11 Mineral Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓

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

The proposed project is not located in an area designated as a Mineral Resource Zone (MRZ)-2 by the Surface Mining and Reclamation Act, i.e., areas where there is a high likelihood of significant mineral deposits (CDC 1987). Therefore, the project would not result in the loss of known mineral resources of value to the region or state. No impact would occur.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? (No impact)

The *City of Napa General Plan* (City of Napa 2015) does not discuss any locally important mineral resource recovery site on or in the vicinity of the project components. Additionally, the *Napa County General Plan* (Napa County 2009) does not identify any MRZ-2 resource areas on or in the vicinity of the project sites. Therefore, the proposed project would have no effect on the availability of known, locally important mineral resources, and no impact would occur.

3.12 Noise

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				✓
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?			✓	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			✓	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		✓		
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 expose people residing or working in the project area to excessive noise levels?				✓
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓

Discussion

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (No impact)

Chapter 8.08.025 of Napa Municipal Code provides that construction activities shall be limited to the hours of 7:00 am to 7:00 pm Monday through Friday, unless construction qualifies for an exemption. Start-up of machines and equipment are not allowed prior to 8:00 a.m., servicing of equipment is not allowed after 6:45 pm, and no delivery of materials or equipment are allowed prior to 7:30 a.m. or after 5:00 p.m., Monday through Friday. The Municipal Code, however, provides that public agencies involved in construction activities for the purpose of protecting public health, safety, and welfare, are exempt from the time limitations. The project would be anticipated to comply with the time limits in the City's noise ordinance, except where nighttime construction is required. Even then, the City's noise ordinance provides that projects undertaken for public health and safety, such as this sewer improvement project, are exempt from the ordinance's time limits.

Therefore, project construction would be consistent with the Napa Municipal Code, and no impact would occur.

The City of Napa General Plan has two policies which relate to construction activities within the City. Policy HS-9.9 states: "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-9.11 provides: "The City shall regulate construction in a manner that allows for efficient construction mobilization and activities, while also protecting noise sensitive land uses." The project would not conflict with either policy, in that the hours proposed for construction in general would be during the day, when the number of persons occupying a noise impact area is lowest, and pipeline construction would expose noise sensitive land uses along the alignment for a short duration, as construction would proceed at an average of approximately 100 feet of pipeline installed per day.

Following construction, no portions of the Napa Municipal Code or General Plan apply to the operation of the project relative to noise. Thus, no operational impact would occur.

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels? (Less than significant)

The California Department of Transportation (Caltrans) recommends a vibration limit of 0.5 inches/second, peak particle velocity (in/sec PPV) for buildings structurally sound and designed to modern engineering standards, 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.08 in/sec PPV for ancient buildings or buildings that are documented to be structurally weakened (Caltrans 2004). This analysis assumes that proposed construction areas would not be in the vicinity of fragile structures, but older structures are located close to construction zones. Therefore, based on Caltrans guidance, this analysis establishes 0.3 in/sec PPV as the significance threshold for construction vibration to avoid damage to buildings from vibration sources.

The construction equipment that would generate the highest vibration levels include impact pile drivers and jack hammers. Pile drivers may be used to install shoring at the tunneling locations within approximately 50-60 feet of residential structures. At a distance of 50 feet, vibration levels produced by a pile driver would be 0.228 in/sec PPV (San Francisco 2007), which would be below the 0.3 in/sec PPV threshold. Pipeline construction may also occasionally require the use of jackhammers within approximately 25 feet of nearby residential buildings. At a distance of 25 feet, a jackhammer would typically generate vibration levels of 0.035 in/sec PPV (SFPUC 2013), which is substantially below the 0.3 in/sec PPV threshold. Therefore, the construction-related impacts to groundborne vibration would be less than significant.

During operation, no groundborne vibration would occur, and the project would not result in exposure of persons to or generation of excessive groundborne vibration levels. No operational impact would occur.

c) Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? (Less than Significant)

The new pipelines would be underground and their operation would not be audible. The new higher capacity pump at the pump station would pump the same volume of sewage as it does currently. The impact would be less than significant.

d) Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? (Less than Significant with Mitigation)

The duration of exposure at any given noise-sensitive receptor is a consideration in determining an impact's significance. For example, this analysis generally assumes that temporary construction noise that occurs during the day for a relatively short period of time would not be significant. This analysis assumes that most residents of average sensitivity that live in urban environments are accustomed to a certain amount of construction activity from time to time to maintain existing infrastructure. Therefore, for the purposes of this analysis, temporary exposure to construction noise during the daytime would not be considered to result in a substantial temporary increase in ambient noise levels if it is for a duration of six months or less. An exception to this would be construction near schools that are in session.

Noise peaks generated by construction equipment could result in speech interference in adjacent school classroom buildings if the noise level in the interior of the building were to exceed 45 to 60 dBA. A typical building can reduce noise levels by 25 dBA with the windows closed (U.S. EPA 1974). Assuming a 25 dBA reduction with the windows closed, an exterior noise level of 70 dBA adjacent to a school classroom building would maintain an acceptable interior noise environment of 45 dBA. It should be noted that construction noise levels would vary rather than be continuous in nature, because different types of construction equipment would be used throughout the construction process. Therefore, an exterior noise level of 70 dBA with windows closed during peak noise periods is used as the threshold for substantial construction noise at school classrooms.

Nighttime construction could interfere with sleep at nearby residences. Based on available sleep criteria data, an interior nighttime level of 35 dBA is considered acceptable (U.S. EPA 1974). Assuming a 25 dBA reduction from a residential structure with the windows closed, an exterior noise level of 60 dBA adjacent to the building would maintain an acceptable interior noise environment of 35 dBA. Sleep interference thresholds apply from 10 pm to 7 am.

Noise sensitive land uses along the pipeline alignment include residences and schools. Noise sensitive land uses near the Highway 29 tunneling locations include residences, the Juvenile Justice Center, and River Middle School; and uses near the Freeway Drive/Kilburn Avenue/Laurel Street intersection include residences. Most of the intersections where nighttime construction may occur have residences near them, and off-alignment staging areas may also potentially occur near residences. Noise sensitive land uses near the West Napa pump station include residences and a hotel.

Table 3.12.1 summarizes the maximum instantaneous noise levels expected from proposed construction equipment. The noise levels are reported as L_{max}, which is the maximum A-weighted noise level anticipated.

Table 3.12-1 Construction Equipment Noise Levels

Construction Equipment	Noise Level (dBA L _{max} at 50 feet)
Excavator	81
Tractor/loader/backhoe	78-84
Roller	80
Concrete/asphalt saw	90
Jackhammer	89
Generator	81
Truck-mounted drill rig	79
Bore/horizontal drill	79
Crane	81
Small crane	76
Horizontal hydraulic jack	82
Pile driver	101
Vibratory pile driver	101
Pumps	81
Separation plant	81
Paver	77
Grinder	90
Cement and mortar mixer	80
Tractor trailer 20 yd	77
Pickup truck	75

Source: FHWA 2006, FTA 2006, Santa Rosa 2008, Santa Rosa 2013

Construction-phase noise generation would occur for pipeline installation, tunneling, staging and the pump station upgrade. Pipeline installation would occur in three phases: drilling of dewatering wells, installation of the pipe, and paving. The dewatering wells would be drilled at approximately 50-foot intervals along the pipeline alignment approximately three to four weeks prior to the pipe installation. Drilling of the wells would proceed at approximately 150 feet per day on average and would generate noise levels of approximately 83 dBA L_{max} at maximum at 50 feet. Pipe installation would proceed at approximately 100 feet per day on average and would generate approximately 101 dBA L_{max} at maximum at 50 feet. Pipe installation includes a temporary asphalt patch, but final paving would occur after the entire pipeline has been installed. This final paving would proceed at about 800 feet per day on average and would generate approximately 93 dBA L_{max} at maximum at 50 feet. Pipeline construction near schools could generate noise levels of up to 100 dBA L_{max} at the exterior of classrooms, exceeding the threshold for speech interference by 30 dBA. This would be a significant impact.

If nighttime construction is required for pipeline installation through intersections, maximum noise levels would be the same as identified above and could exceed sleep interference thresholds by up to approximately 40 dBA. Pipeline installation at intersections that must be conducted at night may extend for up to approximately five nights at each location, and may also result in the need for active use of off-alignment staging areas at night. This would be a significant impact.

Tunneling activities for the Highway 29 undercrossing and at the Freeway Drive/Kilburn Avenue/Laurel Street intersection would occur for two to three months and would generate noise levels of approximately 101 dBA L_{max} during drilling activities at 50 feet. A portion of this work may

need to occur at night in both locations. Tunneling activities during nighttime hours could generate up to 100 dBA Lmax at the exterior of residences (which may be within 50-60 feet of the work area), exceeding the threshold for sleep interference by up to approximately 40 dBA. This would be a significant impact.

Pump station improvements at the existing West Napa Pump Station building would generate noise levels of approximately 82 dBA Lmax at 50 feet for approximately two weeks during the outside work; most work would be done inside the building which would not generate substantial noise beyond the property line. As no schools are nearby and no nighttime work would occur, this would be a less-than-significant impact.

Construction traffic would serve each segment of the construction and use some routes more frequently, including Highway 29, South Coombs Street, Old Sonoma Road, and Browns Valley Road. Construction trucks are expected to generate noise levels of approximately 65-70 dBA Leq at 50 feet from the centerline of traffic. Although this may be somewhat louder than existing traffic noise, it would be a less-than-significant impact, because of the limited duration of substantial levels of construction traffic on a particular street and because of the ambient noise levels already present in the area.

Mitigation Measure NO-1. Reduce Construction Noise Levels

The NSD and its contractor shall ensure that noise levels during construction, including construction staging areas, do not exceed the following performance standards:

- an exterior noise level of 70 dBA Leq at school classrooms while school is in session between 7 am and 5 pm.
- an exterior noise level of 60 dBA Leq at residential buildings between 10 pm and 7 am.

The contractor will determine the specific methods to meet the performance standards provided above. Specific measures that can be feasibly implemented to comply with these performance standards include, but are not limited to, the following:

- Best available noise control practices (including mufflers, intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) shall be used for all equipment and trucks in order to minimize construction noise impacts.
- If impact equipment (e.g., jack hammers, pile drivers) is needed during project construction, hydraulically or electric-powered equipment shall be used wherever feasible to avoid the noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used. External jackets on the tools themselves shall also be used if available and feasible.
- To the extent consistent with applicable regulations and safety considerations, operation of vehicles requiring use of back-up beepers shall be avoided near sensitive receptors during nighttime hours and/or, the work sites shall be arranged in a way that avoids the need for any reverse motions of large trucks or the sounding of any reverse motion alarms during nighttime work. If these measures are not feasible, trucks operating during the nighttime hours with reverse motion alarms must be outfitted with

SAE J994 Class D alarms (ambient-adjusting, or “smart alarms” that automatically adjust the alarm to 5 dBA above the ambient near the operating equipment).

- Stationary noise sources shall be located as far from sensitive noise receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used. Enclosure openings or venting shall face away from sensitive noise receptors.
- A designated project liaison shall be responsible for responding to noise complaints during the construction phases. The name and phone number of the liaison shall be conspicuously posted at construction areas and on all advanced notifications. This person shall take steps to resolve complaints, including periodic noise monitoring, if necessary. Results of noise monitoring shall be presented at regular project meetings with the contractor. The liaison shall coordinate with the contractor to modify any construction activities that generate noise levels above the levels identified in the performance standards listed in this measure.
- A reporting program shall be required that documents complaints received, actions taken to resolve problems, and effectiveness of these actions.
- Locate equipment at the work area to maximize the distance to noise-sensitive receptors, and to take advantage of any shielding that may be provided by other on-site equipment.
- Operate the equipment mindful of the residential uses nearby, especially during the nighttime hours.
- Maintain respectful and orderly conduct among workers, including worker conversation noise during the nighttime hours.
- Maintain the equipment properly to minimize extraneous noise due to squeaking or rubbing machinery parts, damaged mufflers, or misfiring engines.
- Provide advance notice to nearby residents prior to starting work at each work site, with information regarding anticipated schedule, hours of operation and a project contact person.
- Provide a minimum 24-hour advance notice to residents within 250 feet of nighttime work.
- Schedule work and deliveries to minimize noise-generating activities during nighttime hours at work sites (e.g., no deliveries or non-essential work).
- Utilize a temporary noise barrier placed as close to the receptor (e.g., along the residential property line) or to the work site (e.g., as close as 15 to 20 feet from the loudest generating activity area) as possible.
- Utilize sound blankets.
- Limit the type of construction and construction traffic during the hours of 10 p.m. to 7 a.m. to that which can meet the performance standard.

- Offer hotel vouchers to residents who are subject to noise levels in their dwelling from nighttime construction that are measured to exceed the performance standard, even with implementation of all feasible noise reduction actions, such as those listed here.
- Coordinate with nearby schools to schedule construction while school is not in session or limit the type of construction during school hours to that which can meet the performance standard.

With implementation of Mitigation Measure NO-1, construction noise levels would be reduced to a less-than-significant level.

e, f) Exposure of people residing or working near a private or public airport to excessive noise levels? (No impact)

The project site is not located within an adopted airport land use plan (Napa County ALUC 1991), or within two miles of a public or private airport. The nearest airport is the Napa County Airport, a public airport located approximately 4 miles south of the project site. Given the nature of the project, it would not introduce new permanent residents or employees to exposure of excessive airport noise. No impact would occur.

3.13 Population and Housing

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

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

The project consists of construction and operation of a new gravity trunk sewer pipeline and improvements to the West Napa Pump Station. The project does not include the construction of new homes or businesses in the area. The project would not indirectly induce population growth because it would not extend infrastructure into new areas not already served by the NSD, and would not increase the overall capacity of the sewer system or the treatment capacity of the NSD Socol Water Recycling Facility. Therefore, no impact to population growth would occur.

b,c) Displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere? (No impact)

No homes or people would be displaced as a result of project construction or operation, and no replacement housing would be needed. Therefore, no impact would occur.

3.14 Public Services

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
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:				
i) Fire Protection?				✓
ii) Police protection?				✓
iii) Schools?				✓
iv) Parks?				✓
v) Other public facilities?				✓

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 public services? (No impact)

As discussed in Section 3.13, Population and Housing, implementation of the project would not induce population growth and, therefore, would not require expanded fire or police protection facilities to maintain acceptable service ratios, response times, or other performance objectives.

The project would also not result in an increase in the City’s student population, and therefore, no new or expanded schools would be required.

The project would not result in the increased use of existing parks and other public facilities as it would not induce population growth. The project would also not require the expansion of recreational facilities to maintain acceptable service ratios in parks, and would not require the expansion of other public facilities. No impact on public services would occur.

3.15 Recreation

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

a, b) 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, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? (No impact)

The project would not increase employees or population in the surrounding community, so the use of existing neighborhood and regional parks or other recreational facilities would not change as a result of the project. As described in Section 1.5, “Environmental Protection Actions Incorporated into the Project,” the NSD would ensure that any necessary off-alignment staging areas would not eliminate parking needed for public recreational facilities. The project would not result in the physical deterioration of public recreational facilities, and would not require construction of parks and recreational facilities. No impact would occur.

3.16 Transportation and Traffic

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			✓	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				✓
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				✓
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				✓
e) Result in inadequate emergency access?		✓		
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?		✓		

- a) **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? (Less than significant)**

Construction

No specific measures of effectiveness in adopted plans apply to temporary construction traffic. Construction of the project would result in a short-term increase in vehicle trips on local roadways

within the City and on Highways 29 and 121. Construction would result in vehicle trips by construction workers, supply trucks, and haul trucks to and from the active portion of construction along the alignment. The number of construction-related vehicles traveling to and from the site would vary on a daily basis. In general, construction is anticipated to require approximately 75 haul truck roundtrips each day. Construction would also result in daily vehicle trips by construction workers (approximately 10 to 15 per day). Construction related vehicle trips would be distributed throughout the day. The addition of construction-related vehicles would not substantially affect congestion on local roadway segments, because the daily construction trips would move around and because they are a small percentage of the capacity of the roadways. Therefore, the temporary impact of increased truck traffic would be less than significant.

Construction of the project would temporarily alter the normal functionality of several local roadways within the City due to the need for temporary lane closures and some limited road closures. This would result in short-term decreases in the performance and safety of local roadways during construction. This could create the potential for conflicts between construction vehicles and cars, bicyclists, or pedestrians sharing roadways; confusion or frustration of drivers related to construction activities and detours; and confusion of bicyclists and pedestrians due to temporary alterations in bicycle and pedestrian access and circulation. As described in the project description, the NSD and its construction contractor(s) would be required to prepare and implement a Traffic Control Plan in accordance with City requirements for work conducted within the public right-of-way. Implementation of traffic controls would be required during construction in accordance with City requirements, which would include the use of traffic controls, signs, and flaggers; scheduling of major street/lane closures during off-peak hours, establishment of detour routes, message boards, pedestrian and bicycle control measures, and other measures. Through required compliance with City of Napa traffic control requirements and implementation of the Traffic Control Plan, construction activities would not result in substantial adverse effects or conflicts with the local roadway system. The impact would be less than significant.

In accordance with Policy T-2.6 of its General Plan, the City of Napa has designated truck traffic routes to avoid truck travel through residential neighborhoods whenever possible. City of Napa Municipal Code Chapter 10.48.010 includes designations for 1st Street, Browns Valley Road, and Freeway Drive as truck traffic routes. As noted in City Municipal Code Chapter 10.48.020, truck traffic routes do not apply to vehicles owned by a public utility while in use in the construction, installation or repair of any public utility. Additionally, access to restricted streets is allowed when necessary for delivering material to be used in the construction of structures for which a building permit has been obtained. It is anticipated that West Imola Avenue would be used as the primary truck traffic route to and from Highway 29 and residential streets. West of Highway 29, Freeway Drive, 1st Street, and Browns Valley Road would be used as the primary truck traffic routes. The project would not conflict with City of Napa policies related to truck traffic routes. The impact would be less than significant.

Please refer to Impact f) below for an evaluation of potential construction-related impacts to mass transit and pedestrian and bicycle facilities.

Operation

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, LOS A represents operations with very low delay and LOS F represents congested conditions and

higher delays. Per Goal T-2 of the City of Napa General Plan, the LOS threshold in the City is LOS D citywide, as well as LOS E and LOS F standards for other specific arterials or intersections (City of Napa 2015).

Operation and maintenance of the project would not result in additional daily traffic from maintenance activities or truck trips. Therefore, a traffic impact study was not completed for the project, and operation of the project would not cause congestion that would affect the performance, or LOS, of local roadways. No impact would occur.

Please refer to Impact f) below for an evaluation of potential operational impacts to mass transit and pedestrian and bicycle facilities.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? (No impact)

The Napa County Transportation & Planning Agency (NCTPA) was formed in 1998 as a joint effort by the cities of American Canyon, Calistoga, Napa, St. Helena, the town of Yountville and the County of Napa. The NCTPA serves as the countywide transportation planning agency and is Napa County's Congestion Management Agency. Because the project would not increase operation-related vehicle trips, it would not have a long-term impact on Congestion Management Program (CMP) roadways in the project area, including Highway 29 and Highway 121. Consequently, project operation would not conflict with the approved CMP and there would be no impact.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? (No impact)

The project site is not located within an airport land use plan and the nearest airport to the project site is the Napa County Airport, which is more than four miles south of the project alignment. Project construction and operation would include only ground-based travel, and because the project is not growth inducing, it would not affect air traffic levels. No aspect of the project would result in an increase in air traffic levels or locations; therefore, no impact would occur.

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

Following construction, the new pipeline would be located below ground, and existing conditions along the temporarily impacted roads would generally be restored to pre-existing conditions. Other improvements would be located at the West Napa pump station and would not present a design feature or incompatible use that would result in transportation hazards. The project would not create sharp curves, new intersections, changes to speed limits, or other features that would prevent safe access through the area; therefore, no operational impact would occur.

e) Result in inadequate emergency access? (Less than significant with mitigation)

Construction activities would primarily occur within the public right-of-way, including travel lanes and parking lanes on City streets, sidewalks, and other areas designated as right-of-way. In some portions of the alignment, such as along Browns Valley Road, Freeway Drive, Old Sonoma Road, and South Coombs Street, lane closures would be required. In other portions of the alignment, such as along Sycamore Street, a road closure providing restricted local access may be employed.

Pipeline construction within and adjacent to public roadways that results in a reduction in travel lanes or local-access-only road closures could result in delays for emergency response vehicles or temporarily block access to driveways and cross-streets along the pipeline route. The impact would only occur during the day when construction is ongoing given that vehicle access would be restored at the end of each workday through the use of steel trench plates or trench backfilling. Nevertheless, the impact of construction activities on emergency access to adjacent properties along the alignment or the tunneling locations could be significant.

Following construction, operation and maintenance of the project would not result in additional daily traffic from maintenance activities or truck trips along local roadways, and would, therefore, not affect emergency services or response times in the area. Additionally, no roadway closures would occur during normal operation of the project. The operational impact on emergency access would be less than significant.

Mitigation Measure TR-1: Notify Emergency Responders and Maintain Emergency Access

The NSD and its contractor(s) shall implement the following measures:

- Access to driveways and private roads shall be maintained, as feasible, by using steel trench plates. If access must be restricted for brief periods (more than one hour), property owners shall be notified by NSD in advance of such closures.
- At locations where the main access to a nearby property is blocked, NSD shall be required to have ready at all times the means necessary to accommodate access by emergency vehicles to such properties, such as plating over excavations, short detours, and/or alternate routes.
- Construction shall be coordinated with emergency service providers and administrators of land uses that may be more significantly affected by traffic impacts, such as police and fire stations, transit stations, hospitals, ambulance providers, and schools. As construction progresses, emergency providers, and other land uses as mentioned above shall be notified by NSD in advance of construction of the timing, location, and duration of construction activities and the locations and durations of any temporary detours and/or lane closures.

Mitigation Measure TR-1 would reduce the impact of construction activities on emergency access to a less-than-significant level by requiring contractor(s) to have ready at all times the means necessary to accommodate access by emergency vehicles, as well as notifying emergency responders in advance of construction activities. Therefore, the impact on emergency access following mitigation would be less than significant.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (Less than significant with mitigation)

Public transit within the City of Napa is provided by the Napa Valley Transportation Authority (NVTA). Three transit routes operated by the NVTA traverse roadways that would be impacted during construction, including Route 1 (Browns Valley/Old Sonoma), Route 2 (Outlets/Old Sonoma/Laurel), and Route 3 (South Napa Marketplace/Coombs). Because pipeline installation

would temporarily impact the performance and safety of public transit along these transit routes or bus stops, the impact is considered significant.

The City of Napa Bicycle Plan identifies Browns Valley Road, 1st Street, and Freeway Drive as Primary Class II Routes with existing Class II bike lanes. The Bicycle Plan also identifies Franklin Street as an existing Class III bicycle boulevard, and Old Sonoma Road to the east and west of Highway 29 is designated as a proposed Class II bike lane. (City of Napa 2012)

Because construction activities would temporarily alter the normal functionality of adjacent roadways, the potential exists for a decrease in the performance and safety of the above-mentioned bicycle facilities. In addition, work zone activities within sidewalks, parking lanes, and travel lanes could temporarily disrupt mobility and access for pedestrians along portions of the alignment. The short-term impact on bicycle and pedestrian facilities is considered significant.

Following construction, operation and maintenance of the project would not conflict with existing transit routes or stops, and would not introduce new users of alternative modes of transportation into the area. No operational impact would occur.

Mitigation Measure TR-2: Reduce Impacts on Public Transit, Bicycle, and Pedestrian Facilities

Construction shall be coordinated with local transit service providers to arrange the temporary relocation of bus routes and/or bus stops in work zones, as necessary. The NSD shall work with the Napa Valley Transit Authority and the City of Napa to temporarily relocate bus stops impacted by construction activities. Temporary bus stops shall be located in an acceptable location that minimizes impacts to bus users and meets safety requirements.

Pedestrian and bicycle access and circulation shall be maintained during project construction where safe to do so. If construction activities encroach on a bicycle lane, warning signs shall be posted that indicate bicycles and vehicles are sharing the lane. Detours shall be included for bicycles and pedestrians in all areas potentially affected by project construction. Notices shall be provided to advise bicyclists and pedestrians of any temporary detours around construction zones.

Mitigation Measure TR-2 would reduce the impact of construction on the performance and safety of public transit, bicycle, and pedestrian facilities. Following mitigation, the impact would be less than significant, because impacts would be of short duration and safe detours would be provided.

3.17 Utilities and Service Systems

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				✓
e) 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?				✓
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			✓	

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? (No impact)

During construction, groundwater generated during dewatering operations would be treated at the NSD Soscol Water Recycling Facility. The discharge of groundwater to the Soscol Water Recycling Facility would be temporary in nature and would not substantially alter existing wastewater characteristics or result in the need for new treatment methods. Following construction, the project would not alter existing wastewater characteristics or result in the need for new treatment methods. In addition, the project would not result in an increase in employees or population in the community and would not increase the amount of wastewater generated. Therefore, the project would not cause an exceedance of any wastewater treatment requirements, and no impact would occur.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (No impact)

As described above under item “a,” the project would not alter wastewater characteristics or result in an increase in the generation of wastewater aside from groundwater generated during dewatering operations. Similarly, the project would not result in an increased demand for water. Therefore, the project would not require or result in the construction of other facilities or expansion of existing facilities outside of those included and analyzed in this document. No impact would occur.

c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (No impact)

The project is being designed to minimize displacement of existing utilities to the extent feasible. In some locations, existing storm drain pipelines may need to be relocated within the road right-of-way to accommodate the project. Such relocations, if needed, would be a functional replacement and would not require or result in the construction of other facilities or expansion of existing facilities outside of those included and analyzed in this document. Utility relocations would be located within the same area as proposed for the project pipeline.

Construction related discharges of groundwater would be directed to the sanitary sewer system and would not require new on-site or off-site storm water drainage facilities.

As part of its stormwater pollution prevention program, the City of Napa requires incorporation of low impact development measures in accordance with the Bay Area Stormwater Management Agencies Association (BASMAA) Post-Construction Manual (BASMAA 2014). The BASMAA Post-Construction Manual requirements apply to linear utility projects that create 5,000 square feet or more of newly constructed, contiguous impervious surface. The BASMAA Post-Construction Manual requirements exclude trenching, excavation, and resurfacing associated with linear underground projects, pavement grinding and resurfacing of existing roadways, and construction of new sidewalks pedestrian ramps and bike lanes on existing roadways. Because the project would not result in the construction of new non-excluded contiguous impervious areas, the project would not be required to incorporate low impact development facilities into the design. No impact would occur.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? (No impact)

During construction, City of Napa water supplies could potentially be used for pipeline installation and dust control activities. Construction-related water demands would be short-term and small in volume and would be sufficiently served by existing entitlements. Following construction, the project would not result in an increased demand for water. Therefore, no new entitlements or facilities would be required. No impact would occur.

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

As described above under item "a," the project would not result in an increase in the generation of wastewater. Because there would be no increase in wastewater discharges, the project would not impair the ability of the Soscot Water Recycling Facility to continue serving existing commitments. No impact would occur.

f,g) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, and comply with federal, state, and local statutes and regulations related to solid waste? (Less than significant)

Construction of the project would result in a temporary increase in solid waste disposal needs associated with construction wastes. Construction wastes for the project would generally include pavement, concrete, and soil to be excavated during installation of the new pipeline. The project would be required to comply with applicable federal, state, and local statutes. This would include diversion of construction waste from landfills by using recycling, reuse, salvage, and other diversion programs in accordance with Chapter 15.32 of the City of Napa Municipal Code (Construction and Demolition Debris Recycling and Diversion). Construction waste with no practical reuse or that cannot be salvaged or recycled would be disposed of at a local landfill, such as the Potrero Hills Landfill in Solano County or the Redwood Sanitary Landfill in Marin County. Any excavated soil found to contain unacceptable levels of hazardous contaminants would be hauled to a licensed disposal site.

The nearest landfill is the Redwood Sanitary Landfill, which has a maximum permitted capacity of 19.1 million cubic yards and can accept a maximum of 2,300 tons of solid waste per day. The Redwood Sanitary Landfill has a remaining capacity of approximately 12 million cubic yards (California Department of Resources Recycling and Recovery 2016). Therefore, solid waste generated by project construction is expected to be a small percentage of the remaining capacity of the Redwood Sanitary Landfill. Because construction waste disposal needs would be sufficiently accommodated by existing landfills, the impact would be less than significant.

Following construction, project operation would not generate additional solid waste. Therefore, no operational impact would occur.

3.18 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 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, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			✓	
c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?			✓	

- a) Does the project have the potential to 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, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? (Less than significant with mitigation)**

As evaluated in this IS/Proposed MND, the project would not 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; reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory.

Environmental protection actions are in place (see Section 1.6, Environmental Protection Actions Incorporated into the project, of this IS/Proposed MND) to reduce impacts related to air quality and geologic hazards. Additionally, mitigation measures are listed herein to reduce impacts related to aesthetics, biological resources, cultural resources, hazardous materials, hydrology and water

quality, noise, and transportation/traffic. With implementation of the required mitigation measures, impacts would be less than significant.

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

Cumulative impacts are defined as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines Section 15355). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

The cumulative impact analysis in this IS/MND uses the list approach. A search was undertaken for reasonably foreseeable projects in the vicinity of the project area that may have overlapping or cumulative impacts with the proposed project. Table 3.18-1 (Projects Considered for Cumulative Impacts) provides a list of past, present, and probable future projects producing related or cumulative impacts, including a brief description of the projects and their anticipated construction schedules.

Table 3.18-1 Projects Considered for Cumulative Impacts

Project Name	Project Description	Estimated Construction Schedule	Project Location
Napa Oaks II	Development of 53 single family lots and four open space parcels.	2017-2020	3095 Old Sonoma Road
Vista Tulocay Apartments	Development of 282 unit apartment complex	undetermined	467 Soscol Avenue
Highway 29 Water Main Repairs	Installation of HDD drilled potable water pipelines beneath Highway 29 at multiple locations in the City of Napa.	2016-2017	Freeway Drive, Kilburn Avenue, Pine Street
Public Street Paving Improvements	Planned capital improvement paving.	2017	Browns Valley Road, First Street, and Jefferson Street

As summarized in Section 3 of this IS/MND, the project would not result in impacts on agriculture and forest resources, land use and planning, mineral resources, population and housing, public services, and recreational facilities. Therefore, implementation of the project would not contribute to any related cumulative impact.

An analysis of potential cumulative impacts on aesthetics, air quality, greenhouse gas emissions, biological resources, cultural resources, geology/soils, hazards/hazardous materials, hydrology/water quality, noise, transportation/traffic, and utilities/service systems is provided below.

Aesthetics

As discussed in Section 3.1, Aesthetics, the project has potential impacts on the existing visual character of local streets in the event that trees located along the pipeline alignment are damaged. The project also has the potential to impact adjacent residences due to construction lighting in the event that construction is required to occur during nighttime hours.

Implementation of the Highway 29 Water Main Repairs project by the City of Napa, which is one of the cumulative projects listed in Table 3.18-1, could have similar impacts as described for the NSD project given that it may occur in close proximity to the NSD project; therefore, the cumulative impacts could be significant. However, the project's impacts on aesthetics would be reduced to a less-than-significant level with implementation of Mitigation Measure AES-1 (Trenching Techniques to Minimize Tree Loss) and AES-2 (Avoid Glare and Light Trespass from Nighttime Construction Lighting). Mitigation Measure AES-1 would reduce the impact of potential tree loss to a less-than-significant level by minimizing tree removals and replacing any trees lost to reestablish the visual character that the trees help provide. Mitigation Measure AES-2 would reduce the impact of potential nighttime lighting to a less-than-significant level through implementation of a Nighttime Construction Lighting Plan to avoid glare that would be a hazard to vehicles and to avoid light trespass onto adjacent residential uses. With implementation of these measures, the project's contribution to cumulative aesthetics impacts would not be cumulatively considerable, and therefore less than significant.

Air Quality and Greenhouse Gas Emissions

By its nature, air pollution and greenhouse gas emissions are largely a cumulative impact, in that individual projects are rarely sufficient in size to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. As discussed in Section 3.3, Air Quality, the project would not conflict with or obstruct applicable air quality plans or exceed BAAQMD thresholds of significance for criteria air pollutants. Therefore, the project would not result in a significant cumulative impact on air quality. As described in Section 3.7, Greenhouse Gas Emissions, any increases in project-related greenhouse gas emissions would be minimal and would not impede the State in meeting Assembly Bill 32 (AB 32) greenhouse gas reduction goals. Therefore, the project's contribution to cumulative greenhouse gas impacts would not be cumulatively considerable, and therefore less than significant.

Biological Resources

As discussed in Section 3.4, Biological Resources, the project has potential impacts to nesting passerines and raptors and the pallid bat. Implementation of the cumulative projects listed in Table 3.18-1 could have similar impacts as described for the project, therefore, the cumulative impact could be significant. However, the project's impact on nesting passerines, raptors, and the pallid bat would be reduced to a less-than-significant level with implementation of Mitigation Measure BIO-1 (Protection Measures during Construction for Migratory Birds or Raptors), which would require compliance with appropriate resource agency recommendations for tree removals, including removal of trees outside of the breeding season where feasible and preconstruction nesting surveys. With implementation of this measure, the project's contribution to cumulative impacts related to nesting passerines and raptors would not be cumulatively considerable, and therefore less than significant. As discussed in Section 3.4, Biological Resources, the project would not result

in impacts to riparian habitat, wetlands, and other biological resources. Therefore, no cumulative impact on such biological resources would occur.

Cultural Resources

Implementation of the cumulative projects listed in Table 3.18-1 may require grading and excavation that could potentially affect cultural and paleontological resources or human remains, or modify or otherwise impact historic buildings/structures. If these resources are not protected, the cumulative effect of the project plus cumulative projects could be significant. CEQA requirements for protecting cultural resources, human remains, and paleontological resources would be applicable to each of the cumulative projects. As discussed in Section 3.5, Cultural Resources, record searches and meetings were undertaken to ensure that cultural resources, human remains, and paleontological resources that could be impacted by project implementation were identified and mitigation measures are included that would reduce impacts to a less-than-significant level. With implementation of the mitigation measures, the project's contribution to this cumulative impact would not be cumulatively considerable, and therefore less than significant.

Geology and Soils

The nature of geologic impacts is site-specific. Therefore, geologic hazards do not accumulate as impacts on resources do. As discussed in Section 3.6, Geology and Soils, with compliance with the recommendations of the project-specific geotechnical report and applicable State and local regulation and policies, the project's geologic-related impacts would be less than significant. Because of the localized nature of geologic and soil impacts, no significant cumulative impacts would occur.

Hazards and Hazardous Materials

As described in Section 3.8, Hazards and Hazardous Materials, the project would be subject to existing and future laws and regulations governing hazardous materials, which would minimize project-related impacts to a less-than-significant level. Implementation of the cumulative projects listed in Table 3.18-1 may also result in the use, transport, and disposal of hazardous materials during construction. Each of the cumulative projects would also be required to comply with existing and future laws and regulations governing hazardous materials, similar to the proposed project. For this reason, the potential cumulative impact from the use, transport, and disposal of hazardous materials during construction would be less than significant. Impacts related to potential on-site contamination that could be encountered during construction are generally a site-specific issue. Because of the localized nature of such impacts, the cumulative impact would be less than significant.

Hydrology and Water Quality

As described in Section 3.9, Hydrology and Water Quality, the project would be subject to existing permits and waste discharge requirements applicable to construction activities, including groundwater dewatering, which would minimize project-related water quality impacts to a less-than-significant level. Implementation of the cumulative projects listed in Table 3.18-1 would also be required to comply with applicable regulations, similar to the proposed project. For this reason, the potential cumulative impact on hydrology and water quality would be less than significant.

Noise and Vibration

As discussed in Section 3.12, Noise and Vibration, the project has potential impacts related to construction noise at certain locations along the proposed alignment. Implementation of the cumulative projects listed in Table 3.18-1 could have similar impacts as described for the project if construction activities occurred at the same time as the NSD project and in the general vicinity of the NSD project; therefore, the cumulative construction noise impact could be significant. However, the project's impact related to construction noise would be reduced to a less-than-significant level with implementation of Mitigation Measure NO-1 (Reduce Construction Noise Levels). With implementation of this measure, the project's contribution to cumulative construction noise impacts would not be cumulatively considerable, and therefore less than significant.

Transportation / Traffic

As described in the Section 3.16, the NSD project would be subject to City of Napa encroachment permit requirements, which would require the preparation and implementation of a Traffic Control Plan in accordance with City requirements for work conducted within the public right-of-way. Implementation of the cumulative projects listed in Table 3.18-1 would also be required to comply with City requirements for any work conducted within the public right-of-way, similar to the proposed project.

As further discussed in Section 3.16, the project has potential impacts on emergency access to adjacent properties along active construction corridors. The project also has the potential to impact the performance and safety of bicycle facilities and to temporarily disrupt mobility and access for pedestrians along portions of the alignment.

Implementation of the Highway 29 Water Main Repairs project by the City of Napa, which is one of the cumulative projects listed in Table 3.18-1, could have similar impacts as described for the NSD project in the same location as project components; therefore, the cumulative impacts could be significant. However, the impacts of the NSD project on emergency access and bicycle and pedestrian facilities would be reduced to a less-than-significant level with implementation of Mitigation Measure TR-1 (Notify Emergency Responders and Maintain Emergency Access) and TR-2 (Reduce Impacts on Public Transit, Bicycle, and Pedestrian Facilities). Mitigation Measure TR-1 would reduce the impact of construction activities on emergency access to a less-than-significant level by requiring contractor(s) to have ready at all times the means necessary to accommodate access by emergency vehicles, as well as notifying emergency responders in advance of construction activities. Mitigation Measure TR-2 would reduce the impact of project construction on the performance and safety of public transit, bicycle, and pedestrian facilities by coordinating with local transit service providers and providing signage and detours as needed to ensure pedestrian connectivity and safety. With implementation of these measures, the project's contribution to cumulative transportation impacts would not be cumulatively considerable, and therefore less than significant.

Utilities and Service Systems

As summarized in Section 3.17, Utilities and Service Systems, the project would not result in impacts related to wastewater treatment requirements, or result in the need for new water or wastewater treatment facilities, government facilities, expansion of off-site storm water drainage facilities, expanded water supplies or entitlements, or conflict with solid waste regulations. Therefore, implementation of the project would not contribute to any related cumulative impacts.

Construction of the project would result in a temporary increase in solid waste disposal needs during construction, which would include disposal of construction wastes at a local landfill, such as the Potrero Hills Landfill in Solano County or the Redwood Sanitary Landfill in Marin County. Implementation of the cumulative projects listed in Table 3.18-1 may also result in solid waste that would require disposal at regional landfills. As summarized in Section 3.17, Utilities and Service Systems, local landfills have sufficient permitted capacity and would be expected sufficiently accommodate the project plus cumulative project construction and operational needs into the foreseeable future; therefore, the potential cumulative impact would be less than significant.

c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly? (Less than significant)

As discussed in the analysis throughout Section 3 of this IS/MND, the project would not have environmental effects that would cause substantial adverse direct or indirect effects on human beings.

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Appendix B Mitigation Monitoring Program

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MITIGATION AND MONITORING PROGRAM
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Mitigation Measure	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action & Schedule	Monitoring Compliance Record (Name/Date)
<p>Mitigation Measure EPA-1: Off-alignment Staging Area Constraints</p> <p>Napa Sanitation District will ensure that off-alignment construction staging areas meet the following qualifications:</p> <ul style="list-style-type: none"> • Staging areas will not occur within 100 feet of sensitive receptors. Sensitive receptors may include residences, overnight health care facilities, and schools. • Staging will not occur where there are jurisdictional wetlands or habitat for special-status species. Prior to designating a staging area, the NSD will ensure that wetland and habitat surveys are conducted by qualified biologists. Staging areas that are entirely paved, compacted, or maintained landscaped areas are not subject to this measure. • Staging will protect trees. • Staging will not occur where known archaeological or historic resources have been previously identified. Prior to designating a staging area, the NSD will conduct an archival records search with the Northwest Information Center to identify known archaeological resources within the vicinity of the project facility. Staging areas that are entirely paved and that would not be excavated are not subject to this measure. • Staging areas located in a floodplain shall not include fuelling areas or storage areas for chemicals or hazardous substances between October 1 and April 30. • Staging will consider the parking needed for public recreational facilities. 	<p>Incorporate into specifications.</p>	<p>Napa Sanitation District</p>	<p>Verify in 90% plan set.</p> <p>Verify all staging areas identified meet qualifications.</p>	
<p>Mitigation Measure EPA-2: Geotechnical Design</p> <p>As part of the project design process, the NSD has engaged a California-registered Geotechnical Engineer to conduct a design-level geotechnical study for the project. The NSD will design the project to comply with the site-specific recommendations made in the project's geotechnical report. This will include design in accordance with the seismic and foundation design criteria, as well as site preparation and grading recommendations included in the report. The geotechnical recommendations will be incorporated into the final plans and specifications for the project, and will be implemented during construction.</p>	<p>Conduct design-level geotechnical study.</p> <p>Incorporate geotechnical study recommendation into specifications.</p>	<p>Napa Sanitation District</p>	<p>Verify all geotechnical study design recommendations are incorporated in 90% plan set.</p>	

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Mitigation Measure	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action & Schedule	Monitoring Compliance Record (Name/Date)
<p>Mitigation Measure EPA-3: BAAQMD Basic Construction Measures</p> <p>To limit dust, criteria pollutants, and precursor emissions associated with the construction activity, NSD will include the following Bay Area Air Quality Management District (BAAQMD) recommended Basic Construction Measures in all construction contract specifications for the project:</p> <ul style="list-style-type: none"> • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas and unpaved access roads) shall be watered two times per day; • All haul trucks transporting soil, sand, or other loose material off-site shall be covered or shall have at least two feet of freeboard; • All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited; • All vehicle speeds on unpaved areas shall be limited to 15 miles per hour; • All paving shall be completed as soon as possible after trenching work is finished; • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points; • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation; • A publicly visible sign shall be posted with the telephone number and person to contact at NSD regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations. 	<p>Incorporate BAAQMD recommended Basic Construction Measures into specifications.</p>	<p>Napa Sanitation District</p>	<p>Verify in 90% plan set.</p> <p>Check daily for jobsite compliance.</p>	

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Mitigation Measure	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action & Schedule	Monitoring Compliance Record (Name/Date)
<p>Mitigation Measure AES-1: Trenching Techniques to Minimize Tree Loss</p> <p>The NSD shall retain a certified arborist to develop special trenching and pruning techniques to minimize the potential for tree impacts and tree loss along the alignment. The contractor shall implement such techniques. Construction activities within the dripline of trees adjacent to trenches shall be avoided to the extent feasible during construction. Pruning of trees shall be completed by either a certified arborist or by the contractor under supervision of either an International Society of Arboriculture qualified arborist, American Society of Consulting Arborists consulting arborist, or a qualified horticulturalist. Pruning shall be completed to the minimum degree necessary to accommodate construction vehicles and in a manner that helps preserve tree health. If trees are damaged or lost, trees shall be replaced in accordance with the City of Napa Municipal Code. To the extent allowable, replacement trees shall be planted on-site. The NSD shall ensure that plantings will be monitored annually for five years after project completion to ensure that the replacement planting(s) has developed and that the trees survive</p>	<p>Incorporate into specifications.</p> <p>Identify trees which may be affected by construction activities in 90% plan set.</p>	<p>Napa Sanitation District</p>	<p>Verify in 90% plan set.</p> <p>Monitor once per week during pipeline construction.</p> <p>Verify success of replacement plantings annually for five years after project completion.</p>	
<p>Mitigation Measure AES-2: Avoid Glare and Light Trespass from Nighttime Construction Lighting</p> <p>The NSD shall prepare and implement a Nighttime Construction Lighting Plan for any nighttime work so as to avoid glare that would be a hazard to vehicles and to avoid light trespass onto adjacent residential uses. The lighting plan shall be developed to guide the use of lighting during project construction in such a way as to effectively light the work area while limiting light spill onto adjoining property. The Plan shall adequately describe the work including, but not be limited to, the layout of lighting equipment necessary for all work to be completed at night and descriptions of hardware, including hoods, louvers, shields or other means to be used to control glare and light trespass onto adjoining property. Lighting systems with flood, spot, or stadium type luminaires shall be aimed downward at the work. The recommendations contained in the Nighttime Construction Lighting Plan shall be incorporated into the final plans and specifications for the project and implemented during construction.</p>	<p>Incorporate into specifications.</p> <p>Prepare Nighttime Construction Lighting Plan.</p>	<p>Napa Sanitation District</p>	<p>Verify in 90% plan set.</p> <p>Verify compliance with Nighttime Construction Lighting Plan prior to any work that requires lighting.</p>	

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Mitigation Measure	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action & Schedule	Monitoring Compliance Record (Name/Date)
<p>Mitigation Measure BIO-1: Prevent Disturbance to Nesting Birds</p> <p>The NSD or their contractor(s) shall ensure that the following mitigation will be followed in order to avoid or minimize potential impacts to passerines and raptors that may potentially nest in the trees:</p> <ul style="list-style-type: none"> • Grading or removal of vegetation or nesting trees should be conducted outside the nesting season, which generally occurs between approximately March 1 and August 15, if feasible. Because some bird species nest in grassy and/or shrubby areas, it would be advantageous to remove any trees or vegetation during the non-nesting season. • If grading or vegetation removal between August 15 and March 1 is not feasible and groundbreaking must occur within the nesting season, a pre-construction nesting bird (both passerine and raptor) survey of the grasslands and adjacent trees shall be performed by a qualified biologist within seven days prior to ground breaking. If no nesting birds are observed no further action is required and grading shall occur within one week of the survey to prevent disturbance of individual birds that could begin nesting after the survey. Surveys shall be conducted in advance of installation of dewatering wells. • If active bird nests (either passerine and/or raptor) are observed during the pre-construction survey, a disturbance-free buffer zone shall be established around the nest tree(s) until the young have fledged, as determined by a qualified biologist. • The radius of the required buffer zone can vary depending on the species, (e.g., 75-100 feet for passerines and 200-300 feet for raptors), with the dimensions of any required buffer zones to be determined by a qualified biologist in consultation with CDFW. • To delineate the buffer zone around a nesting tree, orange construction fencing shall be placed at the specified radius from the base of the tree within which no machinery or workers shall intrude. • After the fencing is in place there will be no restrictions on grading or construction activities outside the prescribed buffer zones. 	<p>Incorporate into specifications</p> <p>If not feasible to remove vegetation between 8/15 and 3/1, perform bird nest survey within one week prior to start of construction</p>	<p>Napa Sanitation District</p>	<p>Verify in 90% plan set and conduct surveys / assessments as noted.</p>	

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Mitigation Measure	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action & Schedule	Monitoring Compliance Record (Name/Date)
<p>Mitigation Measure BIO-2: Prevent Disturbance of Pallid Bat</p> <p>Prior to construction, the NSD shall have a Bat Habitat Assessment conducted by a qualified biologist. The Habitat Assessment shall evaluate the trees to be removed that have a breast height diameter greater than 10 inches. The Habitat Assessment shall evaluate the trees for suitable entry points and roost features, and shall provide focused daytime surveys for day-roosting bats. If a pallid bat species is found, or if suspected day roosts for special-status bats are identified, then the Habitat Assessment shall identify suitable performance measures for avoiding impacts as follows:</p> <p>(a) Preconstruction Surveys:</p> <ul style="list-style-type: none"> • All trees and structures suitable for use by bats shall be surveyed for signs of bats prior to project activities. <p>(b) Avoidance Measures:</p> <ul style="list-style-type: none"> • If bats are discovered during the surveys, then a buffer of 100 to 150 feet shall be maintained. • The optimal time to remove trees is September 15 through October 15, when young would be capable of flying, and between February 15 to April 1 to avoid hibernating bats and prior to formation of maternity sites. • If flushing of bats is necessary, it shall be done by a biologist during the non-breeding season from October 1 to March 31. When flushing bats, structures and/or trees shall be removed carefully to avoid harming individuals, and torpid bats given time to completely arouse and fly away. • During the maternity season from April 1 to September 30, prior to construction, a qualified biologist shall determine if a bat nursery is present at any sites identified as potentially housing bats. • If an active nursery is present, disturbance of bats shall be avoided until the biologist determines that breeding is complete and young are reared. 	<p>Incorporate into specifications.</p> <p>Conduct Bat Habitat Assessment.</p> <p>Conduct, if necessary, suitable actions for avoiding impacts.</p>	<p>Napa Sanitation District</p>	<p>Verify in 90% plan set and conduct surveys / assessments as noted.</p>	

MITIGATION AND MONITORING PROGRAM
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Mitigation Measure	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action & Schedule	Monitoring Compliance Record (Name/Date)
<p>Mitigation Measure CR-1: Avoid Loss of Street Trees on Historic Properties The NSD shall avoid loss of street trees over 10" in diameter that occur along the pipeline alignment on the frontage of historic properties listed on the City of Napa's Combined Historic Resources List. Avoidance can be achieved by mitigating the impact of trenching near the tree, using alternative equipment, by moving the pipeline alignment, or other effective measures.</p>	<p>Incorporate into specifications. Identify trees on frontage of historic properties listed on the Combined Historic Resources List.</p>	<p>Napa Sanitation District</p>	<p>Verify in 90% plan set. Confirm, prior to construction, that sufficient actions have been implemented to avoid impacts to identified trees.</p>	
<p>Mitigation Measure CR-2: Protect Archaeological and Tribal Cultural Resources during Construction Activities In the event that any subsurface archaeological features or deposits, including locally darkened soil, or tribal cultural resources are discovered during construction-related earth-moving activities, the NSD shall halt all ground-disturbing activity in the vicinity of the resources and a qualified professional archaeologist shall be retained to evaluate the find and the appropriate tribal representative(s) shall be notified. If the find is determined to constitute either an historical resource or a unique archaeological resource per CEQA Guidelines sections 15064.5, the archaeologist shall develop appropriate mitigation to protect the integrity of the resource and ensure that no additional resources are affected. Mitigation could include but would not necessarily be limited to avoidance, preservation in place, archival research, subsurface testing, or excavation and data recovery.</p>	<p>Incorporate into specifications.</p>	<p>Napa Sanitation District</p>	<p>Verify in 90% plan set.</p>	
<p>Mitigation Measure CR-3: Coordinate with Yocha Dehe Wintun Nation Tribe regarding Tribal Cultural Resources The NSD shall coordinate with the Yocha Dehe Wintun Nation Tribe regarding their recommendation for monitoring of tribal cultural resources during construction.</p>	<p>NSD and Tribe shall coordinate on need for monitoring prior to construction.</p>	<p>Napa Sanitation District</p>	<p>Native American monitoring shall occur as agreed.</p>	

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Napa Sanitation District - Browns Valley Trunk Sewer Project

Mitigation Measure	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action & Schedule	Monitoring Compliance Record (Name/Date)
<p>Mitigation Measure CR-5: Protect Paleontological Resources during Construction Activities In the event that any vertebrate fossils are encountered during construction, all ground disturbing activities within 50 feet of the find shall be temporarily halted, and a qualified paleontologist shall be notified to document the discovery as needed, to evaluate the potential resource, and to assess the nature and significance of the find. Based on the scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the material, if it is determined that the find cannot be avoided. The paleontologist shall make recommendations for any necessary treatment that is consistent with currently accepted scientific practices. Any fossils collected from the area shall then be deposited in an accredited and permanent scientific institution where they will be properly curated and preserved.</p>	Incorporate into specifications.	Napa Sanitation District	Verify in 90% plan set.	
<p>Mitigation Measure CR-6: Protect Human Remains if Encountered during Construction The NSD shall immediately notify the Napa County Coroner should human remains, associated grave goods, or items of cultural patrimony be encountered during construction, and the following procedures shall be followed as required by Public Resources Code § 5097.9 and Health and Safety Code § 7050.5. In the event of the coroner's determination that the human remains are Native American, notification of the Native American Heritage Commission, which would appoint a Most Likely Descendant (MLD). A qualified archaeologist, the NSD and the MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of any human remains and associated or unassociated funerary objects. The agreement would take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, and final disposition of the human remains and associated or unassociated funerary objects.</p>	Incorporate into specifications.	Napa Sanitation District	Verify in 90% plan set.	

MITIGATION AND MONITORING PROGRAM
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Mitigation Measure	Implementation Procedure	Monitoring Responsibility	Monitoring / Reporting Action & Schedule	Monitoring Compliance Record (Name/Date)
<p>Mitigation Measure HAZ-1: Handling and Disposal of Hazardous Wastes</p> <p>The NSD and its contractor shall prepare and implement a Soil and Groundwater Management Plan for excavation and dewatering activities. Elements of the Soil and Groundwater Management Plan shall include, but would not necessarily be limited to, the following:</p> <ul style="list-style-type: none"> Measures to address hazardous materials and other worker health and safety issues during construction, including the specific level of protection required for construction workers. This shall include preparation of a site-specific health and safety plan in accordance with federal OSHA regulations (29 CFR 1910.120) and Cal-OSHA regulations (8 CCR Title 8, Section 5192) to address worker health and safety issues during construction. Monitoring of excavation activities in the vicinity of former underground storage tank sites for soil and groundwater contamination. Monitoring shall include, at minimum, visual and organic vapor monitoring by personnel with appropriate hazardous materials training, including 40 hours of Hazardous Waste Operations and Emergency Response (HAZWOPER) training. If visual or organic vapor monitoring indicates signs of suspected contaminated soil, then soil and groundwater samples shall be collected and analyzed to characterize soil and water quality. In the vicinity of hazardous materials/waste release sites, groundwater brought to the surface as a result of construction dewatering shall be handled in a manner appropriate to the construction-related permits for dewatering. If contamination is suspected or noted during the construction phase, then the groundwater shall be containerized and analyzed for contamination by a laboratory, certified by the California Environmental Protection Agency (CalEPA) Environmental Laboratory Accreditation Program (ELAP), using United States Environmental Protection Agency (USEPA)-approved analytical methods. Where contaminated groundwater is encountered, precautions shall be taken to assure that the installation of piping or other construction activities do not further disperse contamination 	<p>Incorporate into specifications.</p> <p>Prepare Soil and Groundwater Management Plan prior to construction.</p>	<p>Napa Sanitation District</p>	<p>Verify in 90% plan set.</p> <p>Monitor weekly during trenching phase.</p>	

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<ul style="list-style-type: none"> All potentially contaminated materials encountered during Project construction activities shall be evaluated in the context of applicable local, state and federal regulations and/or guidelines governing hazardous waste. All materials deemed to be hazardous shall be remediated and/or disposed of following applicable regulatory agency regulations and/or guidelines. Disposal sites for both remediated and non-remediated soils shall be identified prior to beginning construction. Management of these sites shall be documented in a Material Management Plan acceptable to applicable agencies. All evaluation, remediation, treatment, and/or disposal of hazardous waste shall be supervised and documented by qualified hazardous waste personnel. 				
<p>Mitigation Measure HWQ-1: Manage Construction Storm Water</p> <p>The NSD and/or its contractor shall obtain coverage under State Water Resources Control Board Order No. 2009-0009-DWQ, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities, as amended by Order No. 2012-0006. The NSD shall submit permit registration documents (notice of intent, risk assessment, site maps, Storm Water Pollution Prevention Plan, annual fee, and certifications) to the State Water Resources Control Board. The Storm Water Pollution Prevention Plan shall address pollutant sources, drilling fluids, non-storm water discharges resulting from construction dewatering, best management practices, and other requirements specified in the above-mentioned Order. The Storm Water Pollution Prevention Plan shall also include dust control practices to prevent wind erosion, sediment tracking, and dust generation by construction equipment. A Qualified Storm Water Pollution Prevention Plan Practitioner shall oversee implementation of the Plan, including visual inspections, sampling and analysis, and ensuring overall compliance.</p>	<p>Incorporate into specifications.</p> <p>Prepare SWPPP and permit registration documents prior to construction.</p>	<p>Napa Sanitation District</p>	<p>Verify in 90% plan set.</p> <p>Confirm SWPPP meets State Board requirements.</p>	

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<p>Mitigation Measure NO-1. Reduce Construction Noise Levels</p> <p>The NSD and its contractor shall ensure that noise levels during construction, including construction staging areas, do not exceed the following performance standards:</p> <ul style="list-style-type: none"> • an exterior noise level of 70 dBA Leq at school classrooms while school is in session between 7 am and 5 pm. • an exterior noise level of 60 dBA Leq at residential buildings between 10 pm and 7 am. <p>The contractor will determine the specific methods to meet the performance standards provided above. Specific measures that can be feasibly implemented to comply with these performance standards include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • Best available noise control practices (including mufflers, intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) shall be used for all equipment and trucks in order to minimize construction noise impacts. • If impact equipment (e.g., jack hammers, pile drivers) is needed during project construction, hydraulically or electric-powered equipment shall be used wherever feasible to avoid the noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used. External jackets on the tools themselves shall also be used if available and feasible. • To the extent consistent with applicable regulations and safety considerations, operation of vehicles requiring use of back-up beepers shall be avoided near sensitive receptors during nighttime hours and/or, the work sites shall be arranged in a way that avoids the need for any reverse motions of large trucks or the sounding of any reverse motion alarms during nighttime work. If these measures are not feasible, trucks operating during the nighttime hours with reverse motion alarms must be outfitted with SAE J994 Class D alarms (ambient-adjusting, or “smart alarms” that automatically adjust the alarm to 5 dBA above the ambient near the operating equipment). 	<p>Incorporate into specifications.</p> <p>Ensure qualified noise expert reviews Contractor’s methods for compliance and confirms methods are adequate to meet performance standard.</p> <p>Notify adjacent sensitive receptors</p>	<p>Napa Sanitation District</p>	<p>Verify in 90% plan set.</p> <p>Monitor noise levels weekly during primary construction phases.</p> <p>Respond to neighbour complaints within 2 business days.</p>	

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<ul style="list-style-type: none"> • Stationary noise sources shall be located as far from sensitive noise receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used. Enclosure openings or venting shall face away from sensitive noise receptors. • A designated project liaison shall be responsible for responding to noise complaints during the construction phases. The name and phone number of the liaison shall be conspicuously posted at construction areas and on all advanced notifications. This person shall take steps to resolve complaints, including periodic noise monitoring, if necessary. Results of noise monitoring shall be presented at regular project meetings with the contractor. The liaison shall coordinate with the contractor to modify any construction activities that generate noise levels above the levels identified in the performance standards listed in this measure. • A reporting program shall be required that documents complaints received, actions taken to resolve problems, and effectiveness of these actions. • Locate equipment at the work area to maximize the distance to noise-sensitive receptors, and to take advantage of any shielding that may be provided by other on-site equipment. • Operate the equipment mindful of the residential uses nearby, especially during the nighttime hours. • Maintain respectful and orderly conduct among workers, including worker conversation noise during the nighttime hours. • Maintain the equipment properly to minimize extraneous noise due to squeaking or rubbing machinery parts, damaged mufflers, or misfiring engines. • Provide advance notice to nearby residents prior to starting work at each work site, with information regarding anticipated schedule, hours of operation and a project contact person. • Provide a minimum 24-hour advance notice to residents within 250 feet of nighttime work. • Schedule work and deliveries to minimize noise-generating activities during nighttime hours at work sites (e.g., no deliveries or non-essential work). 				

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<ul style="list-style-type: none"> Utilize a temporary noise barrier placed as close to the receptor (e.g., along the residential property line) or to the work site (e.g., as close as 15 to 20 feet from the loudest generating activity area) as possible. Utilize sound blankets. Limit the type of construction and construction traffic during the hours of 10 p.m. to 7 a.m. to that which can meet the performance standard. Offer hotel vouchers to residents who are subject to noise levels in their dwelling from nighttime construction that are measured to exceed the performance standard, even with implementation of all feasible noise reduction actions, such as those listed here. Coordinate with nearby schools to schedule construction while school is not in session or limit the type of construction during school hours to that which can meet the performance standard. 				
<p>Mitigation Measure TR-1: Notify Emergency Responders and Maintain Emergency Access</p> <p>The NSD and its contractor(s) shall implement the following measures:</p> <ul style="list-style-type: none"> Access to driveways and private roads shall be maintained, as feasible, by using steel trench plates. If access must be restricted for brief periods (more than one hour), property owners shall be notified by NSD in advance of such closures. At locations where the main access to a nearby property is blocked, NSD shall be required to have ready at all times the means necessary to accommodate access by emergency vehicles to such properties, such as plating over excavations, short detours, and/or alternate routes. Construction shall be coordinated with emergency service providers and administrators of land uses that may be more significantly affected by traffic impacts, such as police and fire stations, transit stations, hospitals, ambulance providers, and schools. As construction progresses, emergency providers, and other land uses as mentioned above shall be notified by NSD in advance of construction of the timing, location, and duration of construction activities and the locations and durations of any temporary detours and/or lane closures. 	<p>Incorporate into specifications.</p> <p>Notify Emergency Responders and property owners and occupants whose driveways may be blocked.</p>	<p>Napa Sanitation District</p>	<p>Verify in 90% plan set.</p>	

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<p>Mitigation Measure TR-2: Reduce Impacts on Public Transit, Bicycle, and Pedestrian Facilities</p> <p>Construction shall be coordinated with local transit service providers to arrange the temporary relocation of bus routes and/or bus stops in work zones, as necessary. The NSD shall work with the Napa Valley Transit Authority and the City of Napa to temporarily relocate bus stops impacted by construction activities. Temporary bus stops shall be located in an acceptable location that minimizes impacts to bus users and meets safety requirements.</p> <p>Pedestrian and bicycle access and circulation shall be maintained during project construction where safe to do so. If construction activities encroach on a bicycle lane, warning signs shall be posted that indicate bicycles and vehicles are sharing the lane. Detours shall be included for bicycles and pedestrians in all areas potentially affected by project construction. Notices shall be provided to advise bicyclists and pedestrians of any temporary detours around construction zones.</p>	<p>Incorporate into specifications.</p>	<p>Napa Sanitation District</p>	<p>Verify in 90% plan set.</p> <p>Monitor weekly during primary phases of construction.</p>	