


South Livermore Sewer Expansion Project

Draft Supplemental Environmental Impact Report
State Clearinghouse Number 2021120386

prepared by

City of Livermore
Community Development Department
1052 South Livermore Avenue
Livermore, California 94550
Contact: Andy Ross, Senior Planner

prepared with the assistance of

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

May 2022

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

South Livermore Sewer Expansion Project

Draft Supplemental Environmental Impact Report
State Clearinghouse Number 2021120386

prepared by

City of Livermore
Community Development Department
1052 South Livermore Avenue
Livermore, California 94550
Contact: Andy Ross, Senior Planner

prepared with the assistance of

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

May 2022

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

This report prepared on 50% recycled paper with 50% post-consumer content.

Table of Contents

Tables

Figures

Appendices

This page intentionally left blank.

Acronyms and Abbreviations

af	acre-foot
ABAG	Association of Bay Area Governments
AGTV	Agriculture/Viticulture
amsl	above mean sea level
AB	Assembly Bill
BAAQMD	Bay Area Air Quality Management District
Basin Plan	Water Quality Control Plan
BMP	best management practices
CALGreen	California Green Building Standards Code
CCR	California Code of Regulations
CF	Community Facility
CFR	Code of Federal Regulations
CEQA	California Environmental Quality Act
CIWMA	California Integrated Waste Management Act
CTR	California Toxics Rule
CWA	Federal Clean Water Act
DOC	California Department of Conservation
DOF	California Department of Finance
DWR	California Department of Water Resources
DWP	Drinking Water Program
E	Education and Institutions
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
GHG	greenhouse gas
GSP	groundwater sustainability plan
I-580	Interstate 580
IRWMP	San Francisco Bay Area Integrated Regional Water Management Plan
LF	linear feet
LMC	Livermore Municipal Code
LTS	Less than Significant

LTS-M	Less than Significant with Mitigation Incorporated
LWRP	Livermore Water Reclamation Plant
MCL	maximum contaminant levels
MMRP	Mitigation Monitoring and Reporting Program
MS4	Municipal Separate Storm Sewer System
NI	No Impact
NOA	Notice of Availability
NOC	Notice of Completion
NOD	Notice of Determination
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
OPR	Office of Planning and Research
OS-A	Open Space Agricultural
OSP	Parks, Trailways, Recreation Areas
PD-SLVSP	Planned Development – South Livermore Valley Specific Plan
PFAS	perfluoroalkyl and polyfluoroalkyl substances
PG&E	Pacific Gas and Electric Company
PRC	Public Resources Code
RR	Rural Residential
RWQCB	San Francisco Bay Regional Water Quality Control Board
SB	Senate Bill
SDWA	Safe Drinking Water Act
SGMA	Sustainable Groundwater Management Act
SLV-AG	South Livermore Valley Agricultural
SLVAP	South Livermore Valley Area Plan
SLVSP	South Livermore Valley Specific Plan
SR	State Route
SU	Significant and Unavoidable
SV-AP	Agricultural Preserve
SV-VC	Vineyard Commercial
SWMP	stormwater quality management plan
SWPPP	stormwater pollution prevention plan

SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Load
UC	University of California
USGS	United States Geological Survey
UGB	Urban Growth Boundary
UH	Urban High Residential
UMH	Urban Medium High Residential
USACE	United States Army Corps of Engineers
USC	United States Code
USEPA	United States Environmental Protection Agency
UV	ultraviolet
UWMP	Urban Water Management Plan
WWTP	wastewater treatment plants

This page intentionally left blank.

Executive Summary

This document is a Supplemental Environmental Impact Report (EIR) to the South Livermore Valley Specific Plan EIR ("1997 EIR," State Clearinghouse #1996052025), analyzing the environmental effects of the South Livermore Sewer Extension Project (proposed project). This section summarizes the characteristics of the proposed project, alternatives to the proposed project, and the environmental impacts and mitigation measures associated with the proposed project.

Project Synopsis

Leady Agency Name and Address

City of Livermore
Community Development Department
1052 South Livermore Avenue
Livermore, California 94550

Contact Person and Phone Number

Andy Ross, Senior Planner
aaross@LivermoreCA.gov
(925) 960-4475

Project Description

This Supplemental EIR has been prepared to examine the potential environmental effects of the proposed project. The following is a summary of the full project description, which can be found in Section 2, *Project Description*.

The project alignment is located southeast of the City of Livermore, within unincorporated Alameda County, California. In addition, a portion of the project alignment is located within the City of Livermore, and another portion aligns with the City's Sphere of Influence boundary. The project alignment would be located on South Livermore Avenue (western future phase), Tesla Road (Phase 1, western future phase, and eastern future phase), Buena Vista Avenue (Phase 1), and Greenville Road (Phase 1). The Bottleneck Project (2017 Sewer Master Plan (BO-CIP-P06); would be completed as part of Phase 1) is located within the City of Livermore, in segments along East Avenue. Interstate 580 (I-580), which is located approximately 2.6 miles north of the project alignment and approximately 1.5 miles north of the Bottleneck Project, provides regional access to the project alignment.

The project alignment is currently fully developed and would take place within existing paved rights-of-way. The alignment is predominantly flat, with a slope from approximately 566 feet above mean sea level (amsl) at the northern portion of project alignment, to approximately 591 amsl at the southern portion along Tesla Road. The alignment generally drains from southeast to northwest.

Project Characteristics

The proposed project would amend the South Livermore Valley Urban Growth Boundary (UGB) language to allow the extension of sanitary sewer lines to serve residences and wineries located within and near the City of Livermore. The proposed sewer extension would be installed in phases within South Livermore Avenue from approximately 520 feet northwest of Concannon Boulevard to Tesla Road, within Tesla Road from South Livermore Avenue to approximately 3,000 feet east of Greenville Road, within Buena Vista Avenue from East Avenue to Tesla Road, and within Greenville Road from Tesla Road to approximately 5,900 feet south of Tesla Road.

The City's 2017 Sewer Master Plan also identifies a Bottleneck Project (BO-CIP-P06) located on East Avenue. Preliminary analysis of the proposed project identified four segments of 12-inch sewer pipes that may need to be upsized on East Avenue between Maple Street and Buena Vista Avenue. In total, approximately 950 Linear Feet (LF) would need to be upsized to accommodate the proposed project. Therefore, the proposed project may require the Bottleneck Project to be undertaken sooner than originally anticipated. The Bottleneck Project will also be included in this environmental analysis.

The expanded sewer facilities would allow existing and future wineries, visitor serving uses, and residences to connect to the City's wastewater system in conformance with the Livermore General Plan, South Livermore Valley Specific Plan, and/or South Livermore Valley Area Plan, subject to the provisions of Alameda County Measure D. The project would also allow existing residences on Buena Vista Avenue to connect to the City's wastewater system and cease the use of their on-site septic systems. The project would not induce unanticipated growth in the City or its Sphere of Influence because it would serve existing and permitted uses to achieve the vision of the Livermore General Plan, the South Livermore Valley Specific Plan (SLVSP), and the South Livermore Valley Area Plan (SLVAP), in conformance with Alameda County Measure D.

Construction and Grading

Construction is anticipated to commence in 2024 for approximately 12 months, ending in 2025. The project may be constructed in phases based on funding availability. Daily construction tasks would include excavation/grading, installing pipe, backfilling, patching pavement, and coordinating traffic control. The proposed project would implement a Stormwater Pollution Prevention Plan (SWPPP) that would include use of best management practices (BMP) during project construction, as well as a traffic control plan to regulate worker parking, construction staging, and potential traffic detours during construction. The proposed project would require approximately 27,000 cubic yards of excavation, 26,400 cubic yards of backfill, and 2,140 cubic yards of asphalt is anticipated to be imported.

Project Objectives

The objectives for the proposed project are as follows:

- Improve groundwater quality in the South Livermore Valley area relative to nitrates, which is associated with residential septic systems and livestock keeping
- Facilitate the development potential of existing and new wineries, visitor serving commercial uses, and residences consistent with the City's General Plan, SLVSP, and South Livermore Valley Area Plan (SLVAP) subject to Alameda County Measure D

- Enhance the short- and long-term economic viability of agriculture and viticulture in the South Livermore Valley area, consistent with Goals LU-13 and LU-14 of the City's General Plan

Alternatives

As required by the California Environmental Quality Act (CEQA), this Supplemental EIR examines alternatives to the proposed project. Studied alternatives include the following three alternatives. Based on the alternatives analysis, Alternative 3 was determined to be the environmentally superior alternative.

- Alternative 1: No Project/No Construction
- Alternative 2: No Project/On-Site Wastewater Treatment
- Alternative 3: Alternative Alignment

Alternative 1 (No Project/No Construction) assumes that the Urban Growth Boundary (UGB) language revision is not approved by a majority of voters, and that the proposed pipeline and upsizing of existing pipeline along East Avenue are not constructed. The current uses of adjacent parcels for residential and agricultural uses would continue, and wastewater would continue to be discharged to on-site septic systems. Parcels adjacent to the alignment are constrained from growth by existing septic systems, which are not eligible for expansion due to water quality concerns in the county. Alternative 1 would not achieve any project objectives because groundwater quality would not be improved in the South Livermore Valley, existing wineries and residences would be unable to realize their development potential under the General Plan and SLVSP, and economic viability of agriculture and viticulture in the region would not be enhanced.

Alternative 2 (No Project/On-Site Wastewater Treatment Systems) would not require a revision to the UGB language or install municipal sewer pipelines. Under this alternative, individual wineries and property owners would coordinate to construct small-scale wastewater treatment plants (WWTP) on individual properties to treat and dispose of additional wastewater generated by the maximum development of each property under the General Plan and SLVSP. It is anticipated that approximately five or six such small-scale WWTPs would be required to treat anticipated wastewater associated with implementation of the General Plan and SLVSP. Treated wastewater could be used for crop irrigation. It is likely that biosolids would need to be trucked off site for disposal, and the WWTPs could include lift stations, screening through a rotary screen, and equalization with automated pH aeration. The final design of the small-scale WWTP would be up to individual wineries and property owners. This alternative would require approvals from the County of Alameda, which would act as the CEQA lead agency for small-scale WWTPs on parcels within the unincorporated county. However, Alternative 2 would not fulfill all project objectives to the same degree as the proposed project because it would not enhance the short-term economic viability of agriculture and viticulture in the area, as the construction and installation of individual WWTPs would likely have high individual costs and have uncertain timing due to the necessary coordination between landowners and permit approval process.

Alternative 3 (Alternative Alignment) would involve pipeline upsizing associated with the Bottleneck Project and installation of new sewer pipelines along South Livermore Avenue, Tesla Road, and Greenville Road. Instead of the proposed 5,400-linear foot (LF) alignment along Buena Vista Avenue, Alternative 3 would include 3,800 LF of pipeline within agricultural land located approximately 1,200 feet east of Buena Vista Avenue, to connect to an existing pipeline in Carnegie Loop. Carnegie Loop is located northwest of Bruno Canziani Neighborhood Park. The advantage of

connecting to the existing pipeline in Carnegie Loop would be that the total length of new sewer pipeline would be 1,600 LF shorter than under the proposed project. This alternative would require the same change to the UGB language as the proposed project. However, Alternative 3 would not achieve all of the project objectives because it would not extend municipal sewer service to existing residences along Buena Vista Avenue and reduce groundwater quality issues.

Refer to Section 6, *Alternatives*, for the complete alternatives analysis.

Areas of Known Controversy

The EIR scoping process did not identify areas of known controversy for the proposed project. Responses to the Notice of Preparation of a Draft EIR are summarized in Section 1, *Introduction*.

Issues to be Resolved

The proposed project would require approval from the Livermore City Council to modify the UGB and place it on the ballot, and approval by the majority of voters of the modified UGB language.

Issues Not Studied in Detail in the Supplemental EIR

As indicated in the Initial Study (Appendix IS), there is no substantial evidence that significant impacts would occur to the following issue areas: Aesthetics, Agricultural Resources, Air Quality, Energy, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Transportation, and Wildfire. Impacts to Biological Resources, Cultural Resources, Geology and Soils, Noise, and Tribal Cultural Resources were found to be less than significant with mitigation incorporated in the Initial Study. Mitigation measures for those issue areas are listed below in Table ES-1 and will be carried forward into the Mitigation Monitoring and Reporting Program. Impacts to Hydrology and Water Quality, and Utilities and Service Systems were found to be potentially significant and are addressed in this Supplemental EIR.

Summary of Impacts and Mitigation Measures

Table ES-1 summarizes the environmental impacts of the proposed project, proposed mitigation measures, and residual impacts (the impact after application of mitigation, if required). Table ES-1 also provides the 1997 EIR impact conclusions for Subareas 1 and 2 of the SLVSP. Mitigation measures from the 1997 EIR are only included if they would apply to construction of the Livermore Sewer Extension Project (please note that those measures are still applicable to development along the alignment as studied in the 1997 EIR and allowed in the relevant adopted plans and zoning regulations). Impacts are categorized as follows:

- **Significant and Unavoidable (SU).** An impact that cannot be reduced below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per *CEQA Guidelines* Section 15093.
- **Less than Significant with Mitigation Incorporated (LTS-M).** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under *CEQA Guidelines* Section 15091.

- **Less than Significant (LTS).** An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact (NI).** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Table ES-1 Summary of Environmental Impacts Areas, Mitigation Measures, and Residual Impacts

Environmental Impact	1997 EIR Impact Conclusion	Project Impact Conclusion	Mitigation Measures	Residual Project Impact
Initial Study Impacts (refer to Appendix IS)				
Aesthetics (Environmental Checklist Section 1)				
Impact 1a. The project would have no substantial adverse effect on a scenic vista. No impact would occur.	LTS	NI	None required	NI
Impact 1b. The project would not substantially damage scenic resources. No impact would occur.	LTS	NI	None required	NI
Impact 1c. The project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. No impact would occur.	LTS	NI	None required	NI
Impact 1d. The project would not create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area. No impact would occur.	LTS	NI	None required	NI
Agriculture and Forestry Resources (Environmental Checklist Section 2)				
Impact 2a. The project would not convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland) to non-agricultural use. No impact would occur.	LTS-M	NI	None required	NI
Impact 2b. The project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.	LTS-M	NI	None required	NI
Impact 2c-d. The project would not conflict with existing zoning for, or cause rezoning of, forest land; timberland; or timberland zoned Timberland Production. The project would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.	N/A	NI	None required	NI
Impact 2e. The project would not involve other changes in the existing environment which could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. No impact would occur.	LTS-M	NI	None required	NI

Environmental Impact	1997 EIR Impact Conclusion	Project Impact Conclusion	Mitigation Measures	Residual Project Impact
Air Quality (Environmental Checklist Section 3)				
Impact 3a. The project would not conflict with or obstruct implementation of the applicable air quality plan. This impact would be less than significant.	N/A	LTS	None required	LTS
Impact 3b. The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. This impact would be less than significant.	SU	LTS	None required	LTS
Impact 3c. The project would not expose sensitive receptors to substantial pollutant concentrations. This impact would be less than significant.	LTS	LTS	None required	LTS
Impact 3d. The project would not result in other emissions adversely affecting a substantial number of people. This impact would be less than significant.	LTS-M	LTS	None required	LTS
Biological Resources (Environmental Checklist Section 4)				
Impact 4a. The project would potentially have a substantial adverse effect 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 Wildlife or U.S. Fish and Wildlife Service. Impacts to nesting birds during project construction activities would be potentially significant.	LTS	PS	**BIO-1 Nesting Bird Avoidance and Minimization Efforts**. If project construction activities occur during the nesting season (between February 1 and August 31), a qualified biologist shall conduct a pre-construction survey for nesting birds no more than 14 days prior to construction. The survey shall include the entire project alignment and a 300-foot buffer to account for nesting raptors. If nests are found, the qualified biologist shall establish an appropriate species-specific avoidance buffer of sufficient size to prevent disturbance by project activity to the nest (up to 300 feet for raptors, up to 150 feet for other birds). The qualified biologist shall perform at least two hours of pre-construction monitoring of the nest to characterize "typical" bird behavior. During construction, active nests identified during the pre-construction survey shall be monitored by the qualified biologist to determine if construction activities are causing disturbance to the bird and shall increase the buffer if it is determined the birds are showing signs of unusual or distressed behavior associated with project activities. Atypical nesting behaviors that may cause	LTS-M

Environmental Impact	1997 EIR Impact Conclusion	Project Impact Conclusion	Mitigation Measures	Residual Project Impact
			nest abandonment include, but are not limited to, defensive flights, vocalizations directed towards project personnel/activities, standing up from a brooding position, and flying away from the nest. The qualified biologist shall have authority to order the cessation of construction activities if the nesting birds exhibit atypical behavior that may cause nest failure (nest abandonment and loss of eggs and/or young) until a refined appropriate buffer is established. To prevent encroachment, the established buffer(s) shall be clearly marked by high visibility material. The established buffer(s) shall remain in effect until the young have fledged or the nest has been abandoned as confirmed by the qualified biologist. The monitoring biologist shall determine the appropriate protection for active nests on a case-by-case basis using the criteria described above. The qualified biologist shall prepare a nest monitoring report at the time monitoring has been completed. The report will document the methods and results of the monitoring, and the final status of the nest (i.e., successful fledging of the nest, nest depredation, nest failure due to construction activity). The report shall be submitted to the City for approval.	
Impact 4b-c. The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service; or on State or federally protected wetlands through direct removal, filling, hydrological interruption, or other means. No impact would occur.	LTS	NI	None required	NI
Impact 4d. The project would not 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 would occur.	LTS	NI	None required	LTS

Environmental Impact	1997 EIR Impact Conclusion	Project Impact Conclusion	Mitigation Measures	Residual Project Impact
Impact 4e. The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. No impact would occur.	LTS	NI	None required	LTS
Impact 4f. The project would not 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 would occur.	N/A	NI	None required	NI
Cultural Resources (Environmental Checklist Section 5)				
Impact 5a. The project would not cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5. No impact would occur.	LTS	NI	None required	LTS
Impact 5b. The project has the potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. Impacts to archaeological resources during project construction activities would be potentially significant.	LTS	PS	**CR-1 Unanticipated Archaeological Resources**. If archaeological resources are encountered during ground-disturbing activities, work within 50 feet of the find shall be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for California Register of Historical Resources eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work, such as data recovery excavation, may be warranted to mitigate any significant impacts to archaeological resources.	LTS-M
Impact 5c. The project would not disturb any human remains, including those interred outside of formal cemeteries. This impact would be less than significant.	LTS	LTS	None required	LTS
Energy (Environmental Checklist Section 6)				
Impact 6a. The project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. This impact would be less than significant.	N/A	LTS	None required	LTS

Environmental Impact	1997 EIR Impact Conclusion	Project Impact Conclusion	Mitigation Measures	Residual Project Impact
Impact 6b. The project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. No impact would occur.	N/A	NI	None required	NI
Geology and Soils (Environmental Checklist Section 7)				
Impact 7a.1-a.2. The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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; or strong seismic ground shaking. This impact would be less than significant.	LTS-M	LTS	None required	LTS
Impact 7a.3. The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. This impact would be less than significant.	LTS	LTS	None required	LTS
Impact 7a.4. The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. This impact would be less than significant.	LTS	LTS	None required	LTS
Impact 7b. The project would not result in substantial soil erosion or the loss of topsoil. This impact would be less than significant.	LTS	LTS	None required	LTS
Impact 7c. The project would not 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. This impact would be less than significant.	LTS	LTS	None required	LTS
Impact 7d. The project would not be located on expansive soil creating substantial direct or indirect risks to life or property. This impact would be less than significant.	LTS	LTS	None required	LTS

Environmental Impact	1997 EIR Impact Conclusion	Project Impact Conclusion	Mitigation Measures	Residual Project Impact
Impact 7e. The project would not 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 would occur.	N/A	NI	None required	NI
Impact 7f. The project has the potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Impacts would be potentially significant.	N/A	PS	**GEO-1 Unanticipated Discovery of Paleontological Resources.** Prior to the commencement of project construction, a qualified paleontological monitor (i.e., a paleontologist who meets the Society of Vertebrate Paleontology [2010] standards as a Paleontological Resource Monitor) shall be retained to conduct paleontological monitoring during ground-disturbing activities (including, but not limited to site preparation, grading, excavation, and trenching) of intact (i.e., previously undisturbed) areas mapped as high sensitivity geologic units (QTlp) located along the alignment. This includes areas along Tesla Road near Vasco Road and along Greenville Road approximately 3,000 feet south of Tesla Road (refer to geologic unit map prepared by Dibblee and Minch [2006a]), which are anticipated to require ground disturbance to depths greater than 15 feet. Monitoring shall be performed by a Qualified Paleontologist (i.e., a paleontologist who meets the Society of Vertebrate Paleontology [2010] standards as a Qualified Professional Paleontologist). Full-time monitoring shall be conducted for all ground-disturbing activities that impact previously undisturbed geologic units mapped at the surface as Pliocene to Pleistocene age Livermore Gravel (Qtlp), which has a high paleontological sensitivity. Additionally, initial part-time monitoring (i.e., spot-checking) shall be conducted for all ground-disturbing activities that impact previously undisturbed geologic units mapped at the surface as middle to late Holocene alluvial deposits (Qa) to check for the presence of geologic units of high sensitivity (i.e., early Holocene older alluvium [Qoa, QTlp]). If older sediments are observed at depth, then full-time monitoring shall be conducted. Ground-disturbing activities that impact previously	LTS-M

Environmental Impact	1997 EIR Impact Conclusion	Project Impact Conclusion	Mitigation Measures	Residual Project Impact
			disturbed sediments only do not require paleontological monitoring. The duration and timing of the monitoring shall be determined by the Qualified Paleontologist. If the Qualified Paleontologist determines that full-time or part-time monitoring is no longer warranted, they may recommend reducing monitoring to periodic spot-checking or may recommend that monitoring cease entirely. Monitoring shall be reinstated if any new ground disturbances of previously undisturbed areas are required, and reduction or suspension shall be reconsidered by the Qualified Paleontologist at that time. If a paleontological resource is discovered, the monitor shall have the authority to temporarily divert construction equipment around the find until it is assessed for scientific significance and collected. Once salvaged, significant fossils shall be prepared to a curation-ready condition and curated in a scientific institution with a permanent paleontological collection (such as the University of California Museum of Paleontology). Curation fees are the responsibility of the project owner. A final report shall be prepared describing the results of the paleontological monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. The report shall be submitted to the City. If the monitoring efforts produced fossils, then a copy of the report shall also be submitted to the designated museum repository.	
Greenhouse Gas Emissions (Environmental Checklist Section 8)				
Impact 8a. The project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. This impact would be less than significant.	N/A	LTS	None required	LTS

Environmental Impact	1997 EIR Impact Conclusion	Project Impact Conclusion	Mitigation Measures	Residual Project Impact
Impact 8b. The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. No impact would occur.	N/A	NI	None required	NI
Hazards and Hazardous Materials (Environmental Checklist Section 9)				
Impact 9a-b. The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. This impact would be less than significant.	N/A	LTS	None required	LTS
Impact 9c. The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. This impact would be less than significant.	N/A	LTS	None required	LTS
Impact 9d. The project would not be located on a site that is included on a list of hazardous material 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 This impact would be less than significant.	N/A	LTS	None required	LTS
Impact 9e. The project would not be 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; and thus would not result in a safety hazard or excessive noise for people residing or working in the project area. No impact would occur.	N/A	NI	None required	NI
Impact 9f. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. This impact would be less than significant.	N/A	LTS	None required	LTS

Environmental Impact	1997 EIR Impact Conclusion	Project Impact Conclusion	Mitigation Measures	Residual Project Impact
Impact 9g. The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.	N/A	NI	None required	NI
Land Use and Planning (Environmental Checklist Section 11)				
Impact 11a. The project would not physically divide an established community. No impact would occur.	LTS-M	NI	None required	NI
Impact 11b. The project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No impact would occur.	LTS	NI	None required	NI
Mineral Resources (Environmental Checklist Section 12)				
Impact 12a-b. The project would not 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; or a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. No impact would occur.	LTS	NI	None required	NI
Noise (Environmental Checklist Section 13)				
Impact 13a. The project would potentially result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Impacts are potentially significant.	LTS	PS	**NOI-1. Construction Noise Reduction.** The following requirements are provided to reduce construction noise: ▪ Prior to the start of and for the duration of construction, the contractor shall properly maintain and tune all construction equipment in accordance with the manufacturer's recommendations to minimize noise emissions. ▪ Prior to use of any construction equipment, the contract shall fit all equipment with properly operating mufflers, air intake silencers, and engine shrouds no less effective than as originally equipped by the manufacturer. ▪ During construction, the construction contractor shall place stationary construction equipment and material delivery (loading/unloading) areas to maintain the greatest distance from the nearest residences, or within noise reducing enclosures.	LTS-M

Environmental Impact	1997 EIR Impact Conclusion	Project Impact Conclusion	Mitigation Measures	Residual Project Impact
			▪ The construction contractor shall post a sign along the work alignment that is clearly visible to the public, providing a contact name and telephone number for filing a noise complaint. ▪ These measures shall be listed on all grading plans and monitored by the City of Livermore during construction.	
Impact 13b. The project would not result in generation of excessive groundborne vibration or groundborne noise levels. This impact would be less than significant.	LTS	LTS	None required	LTS
Impact 13c. The project would not be located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport; and thus would not expose people residing or working in the project area to excessive noise levels. No impact would occur.	N/A	NI	None required	NI
Population and Housing (Environmental Checklist Section 14)				
Impact 14a. The project would not induce substantial unplanned population growth in an area, either directly or indirectly. This impact would be less than significant.	N/A	LTS	None required	LTS
Impact 14b. The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. No impact would occur.	N/A	NI	None required	NI
Public Services (Environmental Checklist Section 15)				
Impact 15a.1-a.3, a.5. The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police protection, schools, or other public facilities. No impact would occur.	LTS	NI	None required	NI

Environmental Impact	1997 EIR Impact Conclusion	Project Impact Conclusion	Mitigation Measures	Residual Project Impact
Impact 15a.4. The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 parks. No impact would occur.	LTS	NI	None required	NI
Recreation (Environmental Checklist Section 16)				
Impact-15a-b. The project would not 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. The project does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. No impact would occur.	LTS	NI	None required	NI
Transportation (Environmental Checklist Section 17)				
Impact 17a. The project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. This impact would be less than significant.	SU	LTS	None required	LTS
Impact 17b. The project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). No impact would occur.	N/A	NI	None required	LTS
Impact 17c. The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment). No impact would occur.	LTS	NI	None required	NI
Impact 17d. The project would not result in inadequate emergency access. No impact would occur.	N/A	NI	None required	NI

Environmental Impact	1997 EIR Impact Conclusion	Project Impact Conclusion	Mitigation Measures	Residual Project Impact
Tribal Cultural Resources (Environmental Checklist Section 18)				
Impact 18a-b. The project would potentially cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k) or that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. Impacts to tribal cultural resources during project construction activities would be potentially significant.	N/A	PS	**TCR-1. Unanticipated Discovery of Tribal Cultural Resources**. If cultural resources of Native American origin are identified during project construction, all earth-disturbing work within 50 feet of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find and an appropriate Native American representative, based on the nature of the find, is consulted. If the City determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared in accordance with state guidelines and in consultation with Native American groups and reviewed and approved by the City prior to implementation. The plan would include avoidance of the resource or, if avoidance of the resource is infeasible, the plan would outline the appropriate treatment of the resource in coordination with the archeologist and the appropriate Native American groups, as necessary.	LTS-M
Wildfire (Environmental Checklist Section 20)				
Impact 20a-d. The project would not substantially impair an adopted emergency response plan or emergency evacuation plan; due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. No impact would occur.	LTS	NI	None required	NI

Environmental Impact	1997 EIR Impact Conclusion	Project Impact Conclusion	Mitigation Measures	Residual Project Impact
Supplemental EIR Impacts and Mitigation Measures				
Hydrology and Water Quality (Section 4.1)				
Impact HYD-1. Construction of the proposed project could result in an increase in pollutants in stormwater and wastewater via runoff during grading and excavation activities in the vicinity of existing surface water resources and storm drain infrastructure. Compliance with NPDES permit requirements, Livermore Municipal Code requirements, Alameda County Codes and Ordinances, and Livermore General Plan goals, objectives, and policies would prevent substantial discharges of pollutants via stormwater runoff. Such compliance would minimize adverse effects on water quality. In addition, the disuse and removal of existing residential septic systems would result in an overall improvement in groundwater quality in the project vicinity. Therefore, this impact would be less than significant.	LTS	LTS	None required	LTS
Impact HYD-2. The proposed project would not create an incremental increase in demand for groundwater supplies, nor would it directly interfere with the groundwater table or its recharge. This impact would be less than significant.	LTS	LTS	None required	LTS
Impact HYD-3. The proposed project would not alter the existing drainage pattern of the project alignment, alter the course of a stream or river, or add new impervious surfaces. This impact would be less than significant.	LTS	LTS	None required	LTS
Impact HYD-4. The proposed project is not subject to flooding from a tsunami or seiche, and regulations for development within a Federal Emergency Management Agency-designated flood zone would reduce the risk of pollutant release. This impact would be less than significant.	SU	LTS	None required	LTS
Impact HYD-5. The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. This impact would be less than significant.	LTS	LTS	None required	LTS

Environmental Impact	1997 EIR Impact Conclusion	Project Impact Conclusion	Mitigation Measures	Residual Project Impact
Utilities and Service Systems (Section 4.2)				
Impact UTIL-1. The project would not induce unanticipated growth in the City or surrounding area because it would serve existing development potential consistent with the General Plan and SLVSP. Further, the project would not directly result in wastewater generation; however, the project would indirectly increase wastewater in the City's conveyance and treatment system by replacing septic systems as the primary treatment method of parcels along the project alignment. Impacts from the proposed project related to water, wastewater, stormwater, electricity, natural gas, and telecommunication facilities would be less than significant; however, water and wastewater facility impacts from the development potential of the SLVSP would remain significant and unavoidable, consistent with the findings in the 1997 EIR.	SU	LTS	None required	LTS
Impact UTIL-2. The project would not directly result in increased water demand. Based on Cal Water's water supply and demand projections, projected water supplies are sufficient to meet the anticipated water demand of reasonably foreseeable future development during normal, dry, and multiple dry years, as shown in Table 4.2-3 and Table 4.2-4. This impact would be less than significant.	N/A	LTS	None required	LTS
Impact UTIL-3. The project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure. The project would not impair the attainment of solid waste reduction goals and would comply with federal, state, and local statutes and regulations related to solid waste. This impact would be less than significant.	N/A	LTS	None required	LTS

NI = no impact; LTS = less than significant impact; LTS-M = less than significant impact with mitigation; PS = potentially significant impact; SU = significant and unavoidable impact; N/A = impact not addressed 1997 EIR; EIR = Environmental Impact Report; SLVSP = South Livermore Valley Specific Plan; BAAQMD = Bay Area Air Quality Management District; CEQA = California Environmental Quality Act; MT = Metric Tons; CO_2e = Carbon Dioxide Equivalent

This page intentionally left blank.

1 Introduction

The City of Livermore has prepared this Supplemental Environmental Impact Report (EIR) to the South Livermore Valley Specific Plan EIR ("1997 EIR"), State Clearinghouse #1996052025, certified in September 1997, in accordance with *California Environmental Quality Act (CEQA) Guidelines* Section 15163.

The proposed project alignment is located southeast of the City of Livermore, with most of the alignment within unincorporated Alameda County. The 1997 EIR discusses the environment impacts of the South Livermore Valley Specific Plan, which was designed to combat urban sprawl, and preserve existing vineyards and prime vineyard soil within the southern Livermore Valley. This Supplemental EIR discusses the potential environmental impacts of the proposed project, which would amend the urban growth boundary (UGB) language to allow the extension of sanitary sewer lines to serve residences and wineries within or near the City of Livermore.

This section discusses (1) the basis for preparation of a Supplemental EIR; (2) the project requiring environmental analysis; (3) the EIR background; (4) the legal basis for preparing a Supplemental EIR; (5) the scope and content of the Supplemental EIR; (6) lead, responsible, and trustee agencies; (7) the environmental review process required under CEQA; and (8) an overview of the content of the Supplemental EIR. The proposed project is described in detail in Section 2, *Project Description*.

1.1 Basis for a Supplemental EIR

When an EIR has been adopted and a project is modified or expanded upon, additional CEQA review may be necessary. The key considerations in determining the need for the appropriate type of additional CEQA review are outlined in Public Resources Code Section 21166 and *CEQA Guidelines* Section 15162.

Pursuant to *CEQA Guidelines* Section 15162(a), no subsequent EIR shall be prepared unless one or more of the following conditions is present:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
    - The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration;
    - Significant effects previously examined will be substantially more severe than shown in the previous EIR;

- Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

As discussed in Section 2, *Project Description*, the proposed project would amend UGB language to allow the extension of approximately 27,000 linear feet of sanitary sewer lines, as well as upsize approximately 950 linear feet of pipe to accommodate the proposed sewer expansion. Pursuant to *CEQA Guidelines* Section 15163, a supplemental EIR may be prepared when no substantial changes are proposed in the project which would require major revisions of the previous EIR due to the involvement of new significant environmental effects (pursuant to *CEQA Guidelines* Section 15162). A supplemental document may only be used when minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation (*CEQA Guidelines* Section 15163[a][2]). The proposed project has not substantially changed from the South Livermore Valley Specific Plan, and the general environmental conditions have largely remained the same. Consistent with *CEQA Guidelines* Section 15150, the 1997 EIR is incorporated into this document by reference.

1.2 Project Requiring Environmental Analysis

The proposed project would include the following:

- Amendment to the UGB to allow extension of sanitary sewer lines
- Construction of new sanitary sewer lines to serve winery, agricultural, and residential parcels south of the City of Livermore
- Implementation of the Bottleneck Project, consisting of upsizing existing pipes to accommodate the extended sewer system

For additional information on the proposed project, see Section 2, *Project Description*.

1.3 Environmental Impact Report Background

In 1997, the City of Livermore certified the Final EIR for the South Livermore Valley Specific Plan. This document planned development for 30 residential lots in the City of Livermore, in Alameda County. In March 2000, City voters approved the UGB Initiative, which aims to prevent uncontrolled urban development.

The City of Livermore distributed a Notice of Preparation (NOP) of a Draft Supplemental EIR for the proposed project for a 30-day agency and public scoping period, which started on December 16, 2021, and ended on January 17, 2022. The City received one written response to the NOP regarding the scope and content of the Supplemental EIR, which is summarized in Table 1-1. The NOP and the NOP responses are included in Appendix NOP. Written comments applicable to the environmental analyses under CEQA are addressed, as appropriate, in the analysis contained in the various subsections of Section 4, *Environmental Impact Analysis*, and/or in the Initial Study (Appendix IS).

Table 1-1 NOP Comments and Supplemental EIR Response

Commenter	Comment/Request	How and Where It Was Addressed
Native American Heritage Commission	The commenter recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project as early as possible. The purpose of this early consultation is to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources.	Tribal cultural resources and Assembly Bill 52 consultation are addressed in Environmental Checklist Section 18 of the Initial Study (Appendix IS).

1.4 Purpose and Legal Authority

The proposed project requires the discretionary approval of the City of Livermore; therefore, the project is subject to the environmental review requirements of CEQA. In accordance with *CEQA Guidelines* Section 15121 (California Code of Regulations, Title 14), the purpose of this Supplemental EIR is to serve as an informational document that:

> "will inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project."

As discussed above, this document is a Supplemental EIR to the 1997 EIR pursuant to *CEQA Guidelines* Section 15162 and Section 15163. A Supplemental EIR is appropriate when "(1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and (2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation." The general environmental conditions along the proposed alignment have not substantially changed since preparation of the 1997 Final EIR for the South Livermore Valley Specific Plan; thus, a Supplemental EIR is appropriate to achieve CEQA compliance.

This Supplemental EIR is intended to serve as an informational document for the public and City of Livermore decision makers. The process would include public hearings before the Planning Commission and City Council to consider certification of a Final Supplemental EIR and approval of the proposed project.

1.5 Scope and Content

This EIR addresses impacts identified in the Initial Study to be potentially significant (Appendix IS). The following issues were found to include potentially significant impacts and have been studied in the EIR:

- Hydrology and Water Quality
- Utilities and Service Systems

In preparing this EIR, pertinent City policies and guidelines, certified EIRs and adopted CEQA documents, and other background documents were referenced. A full reference list is contained in Section 7, *References and Preparers*.

The alternatives section of the EIR (Section 6) was prepared in accordance with *CEQA Guidelines* Section 15126.6. Section 6 focuses on alternatives that are capable of eliminating or reducing significant adverse effects associated with the project while feasibly attaining most of the basic project objectives. In addition, the alternatives section identifies the "environmentally superior" alternative among the alternatives assessed. The alternatives evaluated include the CEQA-required "No Project" alternative and two alternative development scenarios for the project area.

The level of detail contained throughout this EIR is consistent with the requirements of CEQA and applicable court decisions. *CEQA Guidelines* Section 15151 provides the standard of adequacy on which this document is based. The *CEQA Guidelines* Section 15151 states:

> "An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good faith effort at full disclosure."

1.6 Issues Not Studied in Detail in the EIR

Table 1-2 summarizes issues from the environmental checklist that were addressed in the Initial Study (Appendix IS). As indicated in the Initial Study, there is no substantial evidence that significant impacts would occur in any of these issue areas.

Table 1-2 Issues Not Studied in the EIR

Issue Area	Initial Study Findings
Aesthetics	The proposed project would not impact the distant views of Altamont Hills and the Diablo Mountain Range from South Livermore Road and Tesla Road. There would be no impact to scenic vistas.
	The proposed project is located approximately 1.6 miles south of the nearest eligible state scenic highway, and would not damage scenic resources such as trees, rock outcroppings, or historic buildings. There would be no impacts to scenic resources.
	The proposed project would not conflict with current applicable zoning or other regulations governing scenic qualities, and would not change or disrupt existing uses in the area. There would be no impacts regarding conflict with applicable regulations governing scenic quality.
	The proposed project would not add sources of substantial light or glare; thus it would not cause adverse effects to daytime or nighttime views in the area. There would be no impacts to light or glare.
Agriculture and Forestry Resources	The project alignment is adjacent to agricultural land but would be constructed within existing paved rights-of-way. No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would be affected by project implementation, and no impact to agricultural land would occur. Additionally, development on adjacent parcels within the SLVSP area would continue to be required to implement applicable mitigation measures from the 1997 EIR.
	Multiple parcels of land adjacent to the project alignment are enrolled under the California Land Conservation Act and are subject to Williamson Act contracts. However, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and no impacts would occur. Additionally, development on adjacent parcels within the SLVSP area would continue to be required to implement applicable mitigation measures from the 1997 EIR.

Issue Area	Initial Study Findings
	The project alignment and surrounding areas are not designated as, nor adjacent to lands zoned for forest land, timberland, or timberland zoned for Timberland Production. Therefore, the project would not conflict with existing zoning for, or cause rezoning of forest land, timberland, or timberland zoned for Timberland Production; result in the loss of forest land; or convert forest land to non-forest use. No impacts to forest land would occur.
	Proposed project construction would not directly or indirectly result in the conversion of farmland or forestland adjacent to the project alignment to non-agricultural use or non-forest use. There would be no impact regarding conversion of forest land to non-forest use or farmland to non-agricultural use. Additionally, development on adjacent parcels within the SLVSP area would continue to be required to implement applicable mitigation measures from the 1997 EIR.
Air Quality	The proposed project would not generate new operational emissions. Emissions generated during construction would be temporary and cease upon completion. Construction activities would adhere to air quality plan control measures and construction-related emissions would not exceed the applicable Bay Area Air Quality Management District significance thresholds. Impacts regarding obstruction of applicable air quality plans would be less than significant.
	Project operation would not increase energy use in the form of electricity, natural gas, or gasoline and diesel fuel consumption. No buildings would be constructed, no vehicle traffic would be generated, and the project would not result in unanticipated growth in its vicinity. Impacts regarding the net increase of criteria pollutants would be less than significant. Additionally, development on adjacent parcels within the SLVSP area would continue to be required to implement applicable mitigation measures from the 1997 EIR.
	Construction-related activities would result in temporary emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy duty diesel equipment. However, DPM generated by project construction would not create conditions where the probability is greater than 10 in one million of contracting cancer for the Maximally Exposed Individual; or generate ground-level concentrations of non-carcinogenic toxic air contaminants that exceed a Hazard Index greater than one for the Maximally Exposed Individual. Project operation would not result in new toxic air contaminant emissions. Impacts regarding exposure of sensitive receptors to substantial pollutant concentrations would be less than significant. Additionally, development on adjacent parcels within the SLVSP area would continue to be required to implement applicable mitigation measures from the 1997 EIR.
	Heavy equipment and vehicles used during construction would temporarily emit odors associated with engine exhaust. The proposed project does not include any odor-generating uses. Impacts regarding other emissions that adversely affect a substantial number of people would be less than significant. Additionally, development on adjacent parcels within the SLVSP area would continue to be required to implement applicable mitigation measures from the 1997 EIR.
Biological Resources	The proposed alignment is within previously disturbed and existing paved rights-of-way and would not require additional ground disturbance. Given these factors, no special status species have the potential to occur along project alignment, and there would be no impacts to special status plant species. The alignment could be used by numerous species of migratory birds that utilize sparse ground cover or ornamental shrubs and landscaping as nesting habitat. Potential impacts to nesting birds would be reduced to less than significant levels through implementation of Mitigation Measure BIO-1 (as described in the *Executive Summary* and Appendix IS).
	The proposed alignment is located within riparian habitat, sensitive natural communities, or wetlands located in its vicinity. Thus, the project would not have a substantial adverse effect on riparian habitat, sensitive natural community, or state or federally protected wetlands, and no impact would occur.
	The proposed alignment is not located directly adjacent to intact wildlife habitat, corridor, aquatic habitat, or suitable connected natural areas. No impacts would occur.
	The proposed project would not result in the removal of existing trees. The project would not conflict with local policies or ordinances protecting biological resources, and there would be no impacts.

Issue Area	Initial Study Findings
	Currently, there are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other habitat conservation plans in the City and County. Therefore, the proposed project would have no impact.
Cultural Resources	There are currently two designated resources listed in the California Register of Historical Places located adjacent to the project alignment on Tesla Road. The project would not involve the demolition of existing buildings or structures or construction of new buildings near the project alignment; therefore, the built environment in the City of Livermore or adjacent unincorporated areas would not be altered. No changes in significance of a historical resource would occur, and no impact would occur.
	The proposed project would not result in ground disturbance in previously undisturbed areas. However, there is always a possibility that previously undiscovered archaeological resources are encountered during project ground disturbance. Potential impacts to archaeological resources would be reduced to less than significant levels through implementation of Mitigation Measure CR-1 (as described in the *Executive Summary* and Appendix IS).
	The proposed project would not result in ground disturbance in previously undisturbed areas. With adherence to existing regulations, impacts to unanticipated human remains would be less than significant.
Energy	Project-related energy consumption would be limited to energy consumed during project construction, such as fuel consumed by vehicles and equipment. Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. Project operation would not increase energy use in the form of electricity, natural gas, or gasoline and diesel fuel consumption. Therefore, the proposed project would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy, and impacts would be less than significant.
	The proposed project would not result in unplanned growth, alter energy efficiency, or affect existing renewable energy resources. The proposed project would not conflict with state or local plans for renewable energy or energy efficiency, and no impact would occur.
Geology and Soils	There is the potential for fault rupture along the project alignment and construction workers would be present at the site and working on a mapped fault; however, no structures are proposed as part of the project. Therefore, the project would not cause direct or indirect adverse effects resulting from fault ruptures or seismic activities. With adherence to the requirements of the California Building Code the project would result in less than significant impacts related to seismically-induced ground shaking from nearby faults. Additionally, development on adjacent parcels within the SLVSP area would continue to be required to implement applicable mitigation measures from the 1997 EIR.
	The project alignment is located within a low liquefaction hazard zone, and liquefaction-related impacts would be less than significant. Additionally, development on adjacent parcels within the SLVSP area would continue to be required to implement applicable mitigation measures from the 1997 EIR.
	The project alignment is in a very low landslide risk area, and impacts involving landslides would be less than significant. Additionally, development on adjacent parcels within the SLVSP area would continue to be required to implement applicable mitigation measures from the 1997 EIR.
	Construction activities would disturb soil along the project alignment, resulting in potential for soil erosion and loss of topsoil. Implementation of Bay Area Air Quality Management District regulations would reduce the potential for project construction to result in substantial wind erosion or loss of topsoil. Compliance with other existing regulatory requirements, including implementation of applicable best management practices related to wind and water erosion control, would reduce potential soil loss and erosion from the alignment. Impacts would be less than significant. Additional discussion of the project's potential to cause erosion or siltation off-site are discussed in Section 4.1, *Hydrology and Water Quality*, Impact HYD-3. Additionally, development on adjacent parcels within the SLVSP area would continue to be required to implement applicable mitigation measures from the 1997 EIR.

Issue Area	Initial Study Findings
	Given the nature of the proposed project and existing conditions along the alignment, the potential for lateral spreading is very low. Project construction would not cause the ground to become unstable or result in landslide, lateral spreading, or liquefaction because the existing roadway would be maintained, and proper construction techniques and regulations would be followed. Impacts would be less than significant. Additionally, development on adjacent parcels within the SLVSP area would continue to be required to implement applicable mitigation measures from the 1997 EIR.
	The project alignment overlays soils that are not expansive; therefore, impacts regarding expansive soils would be less than significant. Additionally, development on adjacent parcels within the SLVSP area would continue to be required to implement applicable mitigation measures from the 1997 EIR.
	The proposed project would not include any septic systems or alternative wastewater disposal systems. Thus, there would be no impact.
	The proposed project would not result in ground disturbance in previously undisturbed areas. However, there is always a possibility that previously undiscovered paleontological resources are encountered during project ground disturbance. Potential impacts to paleontological resources would be reduced to less than significant levels through implementation of Mitigation Measure GEO-1 (as described in the *Executive Summary* and Appendix IS).
Greenhouse Gas Emissions	Project construction would generate approximately 734 metric tons of carbon dioxide equivalent, which would be temporary GHG emissions due to the operation of construction equipment. Project operation would not generate GHG emissions. Therefore, impacts would be less than significant.
	The State's 2017 Scoping Plan was created to outline goals for California to achieve Greenhouse Gas reductions; one strategy is water conservation. Upgrading the pipes would promote wastewater conveyance efficiency and would minimize the existing system wastewater losses associated with leaks and reduced efficiencies due to age. The project would be consistent with energy efficiency goals and policies in the City's General Plan. Therefore, no impact would occur.
Hazards and Hazardous Materials	Project construction would temporarily increase the use and transport of hazardous materials in the project area through the operation of vehicles and equipment. These materials would not be transported, stored, or used in quantities which would pose a significant hazard to the public or construction workers themselves. Project operation would not require transport, use, storage, or disposal of hazardous materials. Impacts would be less than significant.
	There are four schools located within 0.25 mile of the project alignment. Hazardous materials used during project construction would be disposed of offsite in accordance with all applicable federal and state laws and regulations. Therefore, potential impacts associated with an accidental emission or release of hazardous materials in proximity to a school would be less than significant.
	The project alignment and adjacent properties are not included on existing lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, this impact would be less than significant.
	The project alignment is not located within a Safety Compatibility Zone as designated by the Livermore Executive Airport Land Use Compatibility Plan. Therefore, the proposed project would not subject people working along the alignment to safety hazards or excessive noise, and there would be no impact.
	The proposed project would require temporary lane closures throughout the duration of construction, but traffic would be managed by a County-approved traffic control plan. Project operation would not change or disrupt the existing roadway and traffic patterns, and no streets would be closed once construction is complete. Thus, the project would have a less than significant impact regarding interference with emergency response or evacuation plans.
	The project alignment is adjacent to existing residential and commercial uses. There are no wildland conditions on or adjacent to the project alignment, and the project is not located in a designated Very High Fire Hazard Severity Zone. The project would be constructed within

Issue Area	Initial Study Findings
	existing paved rights-of-way, and it would not expose people or structures to a significant loss, injury, or death involving wildland fires. There would be no impact.
Land Use and Planning	Project construction would not physically or socially divide an established community or limit movement, travel, or other interaction between established land uses. Therefore, no impact would occur. Additionally, development on adjacent parcels within the SLVSP area would continue to be required to implement applicable mitigation measures from the 1997 EIR.
	No development beyond projected buildout of the City and County General Plans would occur as a result of the proposed project. Therefore, the project would have no impact regarding conflicts with existing land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. No impact would occur.
Mineral Resources	The project alignment is within existing paved rights-of-way, and no existing mineral resource mining operations occur along the alignment. The proposed project would not require the use of mineral resources valuable to the region and residents of the state, and no mining activity is planned as part of the project. The proposed project would not result in the loss of availability of mineral resources. Therefore, no impacts would occur.
Noise	Construction activity would generate temporary noise in the project vicinity, exposing adjacent sensitive receivers to increased noise levels. Project construction noise would be generated by heavy-duty diesel construction equipment used for site preparation, excavation/grading, construction, and paving activities. Potential noise impacts would be reduced to less than significant levels through implementation of Mitigation Measure NOI-1 (as described in the *Executive Summary* and Appendix IS).
	No change to existing operations would result from the proposed project. Construction would intermittently generate vibration on and adjacent to the project alignment. Construction activity would be limited to daytime hours and would not disrupt residential receivers during recognized hours of sleep. Overall, vibration caused by project construction would result in a less than significant impact.
	The project alignment is not within an area covered by an airport land use plan, nor is it located in the vicinity of a private air strip. The proposed project would not expose people residing or working in the project area to significant aircraft-generated noise. No impact would occur.
Population and Housing	The proposed project would not involve the construction of new residences, businesses, or roadways. The proposed project would not cause unanticipated growth in the city or county, either directly or indirectly, and impacts would be less than significant.
	While there are housing units in the project vicinity, the project would not involve the demolition of existing residences and would not displace existing housing units or people. No impact would occur.
Public Services	The project would not result in unanticipated new development or generate direct or indirect population growth in the City. Thus, the project would not increase the demand for fire, police, school, library, or other public facility services beyond the development currently anticipated in the City and County General Plans. No impact would occur.
Recreation	The proposed project would not impact existing recreational areas. The project would not result in new development or generate direct or indirect population growth in the City. Therefore, the project would not increase the demand for existing recreational services in its vicinity, and there would be no impacts.
Transportation	Construction would require one lane of public roadways to be closed at any given time. The City would post signage along the alignment and on roadways leading up to the project alignment before and during construction to give advance warning of road closures and detours. Once completed, the project would not alter roadways or transit stops, increase commercial or residential development, generate growth, or cause an increase in traffic in the vicinity of the project alignment. Therefore, the proposed project would not conflict with the goals, objectives, or policies addressing bicycle and pedestrian facilities in the City's General Plan Circulation Elements or the City's Bicycle, Pedestrian, & Trails Active Transportation Plan. Impacts would be less than significant. Additionally, development on adjacent parcels within the South Livermore

Issue Area	Initial Study Findings
	Valley Specific Plan area would continue to be required to implement applicable mitigation measures from the 1997 Environmental Impact Report.
	The proposed project would not generate vehicle trips for project operation, and there would be no change to existing roadways or increase in vehicle miles travelled. As such, the project would not conflict or be inconsistent with *CEQA Guidelines* Section 15064.3(b) and no impact would occur.
	The proposed project would not alter or affect the existing street and intersection networks in its vicinity, nor increase hazards due to a new geometric design feature. The proposed project would not introduce incompatible uses, including vehicles or equipment, to the alignment or the surrounding area, and would have no impact.
	Project construction would require one lane of public roadways to be temporarily closed at any given time. Signage would be posted along the alignment and on roadways leading up to the alignment it before and during construction to give advance warning of road closures and detours. As a result, the project would not result in inadequate emergency access and impacts would be less than significant.
Tribal Cultural Resources	The proposed project would not result in ground disturbance in previously undisturbed areas. However, there is always a possibility that previously undiscovered tribal cultural resources are encountered during project ground disturbance. Potential impacts to tribal cultural resources would be reduced to less than significant levels through implementation of Mitigation Measure TCR-1 (as described in the *Executive Summary* and Appendix IS).
Wildfire	Although the project alignment is located in a State Responsibility Area, the project would not result in population growth or expose new residents to wildfire risks. As such, the project would not substantially impair an adopted emergency evacuation plan, exacerbate wildfire risks, require the installation or maintenance of associated infrastructure that may exacerbate fire risk, or expose people or structures to significant risks. There would be no impact with regards to wildfire.

Notes: EIR = Environmental Impact Report; SLVSP = South Livermore Valley Specific Plan

1.7 Lead, Responsible, and Trustee Agencies

The *CEQA Guidelines* define lead, responsible and trustee agencies. The City of Livermore is the lead agency because it holds principal responsibility for approving the proposed project. The proposed project would require approval by the City of Livermore City Council for the following items:

- Approval of language to modify the UGB and place the amendment on the ballot
- Certification of an EIR prepared in accordance with CEQA prior to approving the modified language

A responsible agency refers to a public agency other than the lead agency that has discretionary approval over the proposed project. There are no responsible agencies for the proposed UGB amendment and sewer expansion project.

Trustee agencies have jurisdiction over certain resources held in trust for the people of California but do not have a legal authority over approving or carrying out the project. *CEQA Guidelines* Section 15386 designates four agencies as trustee agencies: the California Department of Fish and Wildlife with regards to fish and wildlife, native plants designated as rare or endangered, game refuges, and ecological reserves; the State Lands Commission, with regard to State-owned "sovereign" lands, such as the beds of navigable waters and State school lands; the California Department of Parks and Recreation, with regard to units of the State park system; and, the

University of California, with regard to sites within the Natural Land and Water Reserves System. There are no trustee agencies for the proposed UGB amendment and sewer expansion project.

1.8 Environmental Review Process

The environmental impact review process, as required under CEQA, is summarized below and illustrated in Figure 1-1. The steps are presented in sequential order.

1. **Determination that Supplemental EIR is warranted.** When an EIR has been certified for a project, a lead agency must determine if a Supplemental EIR should be prepared due to minor changes to the project, circumstances under which the project was approved, or new information. As described in Section 1.1, *Basis for a Supplemental EIR*, the proposed project would involve minor changes to make the 1997 EIR applicable to the proposed project. Therefore, the City has determined that the preparation of a Supplemental EIR is the appropriate approach to CEQA compliance.
2. **Notice of Preparation (NOP)**. Pursuant to the provision of *CEQA Guidelines* Section 15082, the City (as lead agency) issued a NOP for public review and comment (see Appendix NOP). As required by *CEQA Guidelines* Section 15375, an NOP is a brief document sent by the lead agency to notify the responsible agencies, trustee agencies, the Governor's Office of Planning and Research (OPR), and other involved agencies that the lead agency plans to prepare a Supplemental EIR for a project. The purpose of the notice is to solicit guidance from those agencies as to the scope and content of the environmental information to be included in the Supplemental EIR and to solicit recommendations and develop information regarding the scope, focus, and content of the Supplemental EIR.

   The public review and scoping period for the project NOP began on December 16, 2021, and ended on January 17, 2022, in accordance with *CEQA Guidelines* Section15082. Comments on the scope and content of the Supplemental EIR were received and written comments are included in Appendix NOP of this Supplemental EIR.
3. **Draft Supplemental EIR.** Public and agency review of the environmental documentation will be further encouraged through distribution of the Draft Supplemental EIR for at least the required 45-day public review period. Written comments should be submitted by mail or email with appropriate contact information, to the following:

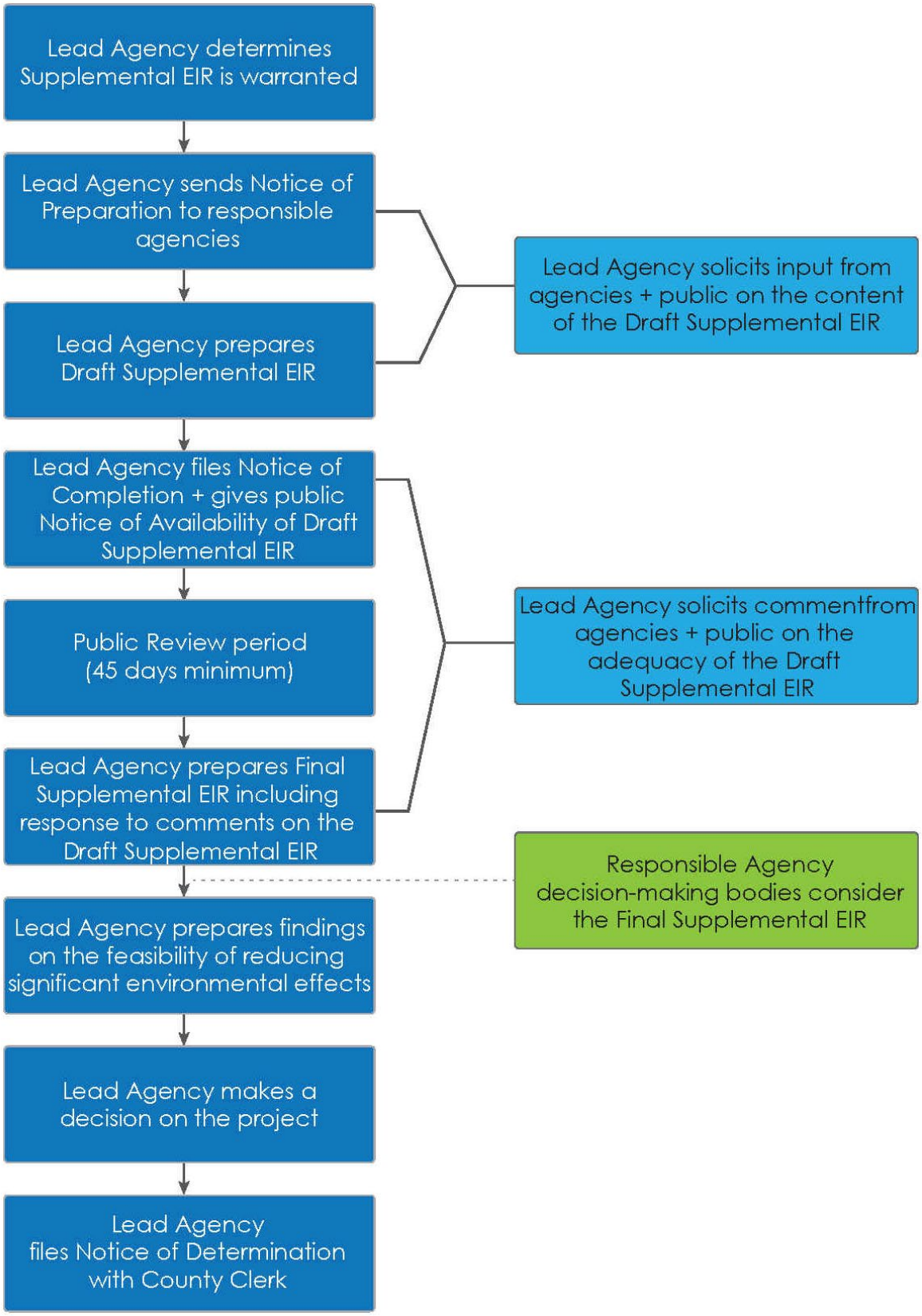
   Andy Ross, Senior Planner
   Community Development Department
   1052 South Livermore Avenue
   Livermore, California 94550
   Email: aaros@LivermoreCA.gov

   Any agency, organization, or members of the public desiring to comment on the Supplemental EIR must submit their comments prior to the end of the public comment period.
4. **Notice of Completion.** The provisions of *CEQA Guidelines* Section15085(a) and Section15087(a)(1) require that as soon as the Draft Supplemental EIR is completed, the lead agency must file a Notice of Completion (NOC) with OPR and that a public Notice of Availability (NOA) be provided to all organizations and individuals who have previously requested notification. The City, serving as the lead agency, will provide the NOC to OPR and circulate an NOA of the Draft Supplemental EIR to public agencies, special districts, tribal representatives,

organizations, and individuals that commented on the NOP and/or requested to be kept informed of the proposed project.

5. **Final Supplemental EIR.** A Final Supplemental EIR consists of the Draft Supplemental EIR; revisions to the Draft Supplemental EIR; responses to comments addressing concerns raised by individuals, organizations, and public agencies or other reviewing parties; and a Mitigation Monitoring and Reporting Program (MMRP). According to Public Resources Code Section 21081.6, for projects in which significant impacts would be minimized by mitigation measures, the lead agency must include an MMRP. The purpose of an MMRP is to ensure compliance with required mitigation measures during implementation of the project. After the Final Supplemental EIR is completed, and at least 10 days prior to its certification, a copy of the response to comments on the Draft Supplemental EIR will be provided or made available to all commenting parties.
6. **Certification of Final Supplemental EIR.** Prior to deciding on the proposed project, the lead agency must certify that: (a) the Final Supplemental EIR has been completed in compliance with CEQA; (b) the Final Supplemental EIR was presented to the decision-making body of the lead agency; and (c) the decision-making body reviewed and considered the information in the Final Supplemental EIR prior to approval (*CEQA Guidelines* Section 15090).
7. **Lead Agency Project Decision.** The lead agency may: (a) disapprove the project because of its significant environmental effects; (b) require changes to the project to reduce or avoid significant environmental effects; or (c) approve the project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (*CEQA Guidelines* Section 15042 and Section 15043).
8. **Findings/Statement of Overriding Considerations**. For each significant impact of the proposed project identified in the Supplemental EIR, the lead agency must find, based on substantial evidence, that either: (a) the proposed project has been changed to avoid or substantially reduce the magnitude of the impact; (b) changes are within another agency's jurisdiction and such changes have or should be adopted; or (c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible (*CEQA Guidelines* Section 15091). If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision.
9. **Mitigation Monitoring/Reporting Program.** When the lead agency makes findings on significant effects identified in the Supplemental EIR, it must adopt an MMRP for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.
10. **Notice of Determination (NOD).** The lead agency must file a NOD after deciding to approve a project for which a Supplemental EIR is prepared (*CEQA Guidelines* Section 15094). A local agency must file the NOD with the County Clerk. The NOD must be posted for 30 days and sent to anyone previously requesting notice. Posting of the NOD starts a 30-day statute of limitations on CEQA legal challenges (Public Resources Code Section 21167[c]).

Figure 1-1 Environmental Review Process



1.9 Draft Supplemental EIR Content

The contents of the Supplemental EIR include the following:

- **Executive Summary** – presents a brief synopsis of the proposed project, including project objectives, and an overview of project alternatives. This section also provides a table summarizing project environmental impacts, mitigation measures, and the level of significance of impacts after mitigation.
- **Section 1, Introduction** – provides an overview of the purpose and type of Supplemental EIR, the Supplemental EIR process, the intended uses of the Supplemental EIR, and an overview of the format and contents of the Supplemental EIR.
- **Section 2, Project Description** – provides a detailed description of the proposed project, including its location, background information, objectives, and physical characteristics.
- **Section 3, Environmental Setting** – provides a general overview of the environmental setting for the proposed project, including the regional setting and the project site setting.
- **Section 4, Environmental Impact Analysis** – presents an analysis of environmental impacts for each environmental factor. Each subsection contains a description of the environmental setting (or existing conditions); identifies the significance criteria used to determine whether impacts would be significant or less than significant; discusses the impacts; describes mitigation measures to reduce significant environmental impacts; and describes cumulative impacts.
- **Section 5, Other CEQA Considerations** – summarizes impacts that would result from the proposed project, including significant environmental effects, significant and unavoidable environmental effects, irreversible changes to the environment, and growth-inducing impacts.
- **Section 6, Alternatives** – describes potentially feasible alternatives to the proposed project that may attain most of the basic project objectives while avoiding or substantially lessening any of its significant effects. The analysis evaluates the environmental effects resulting from each alternative, compares these effects to those resulting from the proposed project, and describes the relationship of each alternative to the project objectives.
- **Section 7, References** – lists the documents and materials referenced in the text of the document, and lists report preparers.

This page intentionally left blank

2 Project Description

The South Livermore Sewer Expansion Project (proposed project) would consist of an amendment to the voter-approved South Livermore Urban Growth Boundary (UGB) Initiative within the City of Livermore, to extend sanitary sewer lines. This section describes the proposed project, including the project proponent, lead agency, existing setting of the project site, project objectives, key elements of the project, potential buildout under the project, and the approvals needed to implement the proposed project.

2.1 Project Proponent/Lead Agency

City of Livermore
Community Development Department
1052 South Livermore Avenue
Livermore, California 94550

Andy Ross, Senior Planner
aaross@LivermoreCA.gov
(925) 960-4475

2.2 Project Location and Setting

The project alignment is generally located southeast of the City of Livermore within unincorporated Alameda County, California. A portion of the project alignment is located within the City of Livermore and another portion aligns with the City's Sphere of Influence boundary. Phase 1 of the alignment would be located on Tesla Road from Buena Vista Avenue to Greenville Road, Buena Vista Avenue from East Avenue to Tesla Road, and Greenville Road from Tesla Road to approximately 5,900 feet south of Tesla Road. The alignment along Tesla Road is adjacent to the City's Sphere of Influence, with the western portion of the alignment along South Livermore Avenue within the city boundary and UGB. The portion along Buena Vista Avenue is within the City's Sphere of Influence and adjacent to the city boundary and UGB at East Avenue. The alignment along Greenville Road is outside the City's Sphere of Influence. The alignment along Buena Vista Avenue and Tesla Road from Buena Vista Avenue to Greenville Road is adjacent to SLVSP Subareas 1 and 2.

The project also includes two potential future phases of the sewer alignment. The western future phase would be located on South Livermore Avenue from approximately 520 feet northwest of Concannon Boulevard to Tesla Road, and on Tesla Road from South Livermore Avenue to Buena Vista Avenue. The eastern future phase would be located on Tesla Road from Greenville Road to approximately 3,000 feet east of Greenville Road.

An additional component of the project that would involve sewer improvements in the City limits (the Bottleneck Project) is located within the City of Livermore, in segments along East Avenue (three segments between 7th Street and Dolores Street and one segment just west of Buena Vista Avenue). The Bottleneck Project would be completed as part of Phase 1.

The project alignment (all phases) is located within existing paved rights-of-way.

Figure 2-1 shows the regional context of the project alignment and Bottleneck Project, Figure 2-2 shows the project alignment, and Figure 2-3 shows the Bottleneck Project in its vicinity context. Regional access to the project alignment and Bottleneck Project is available via Interstate 580 (I-580), which is located approximately 2.6 miles north of the project alignment and approximately 1.5 miles north of the Bottleneck Project.

General Plan Designation

The project alignment is located within existing public roadways rights-of-way and does not have a land use designation. Land use adjacent to much of the project alignment is designated in the City's General Plan Map as Agriculture/Viticulture (AGVT). Additional parcels alongside the alignment are designated as Rural Residential (RR), Urban Medium High Residential (UMH), and Urban High Residential (UH), Community Facility (CF) Parks, Trailways, Recreation Areas (OSP), Agricultural Preserve (SV-AP), and Vineyard Commercial (SV-VC) land uses (City of Livermore 2015).

Zoning

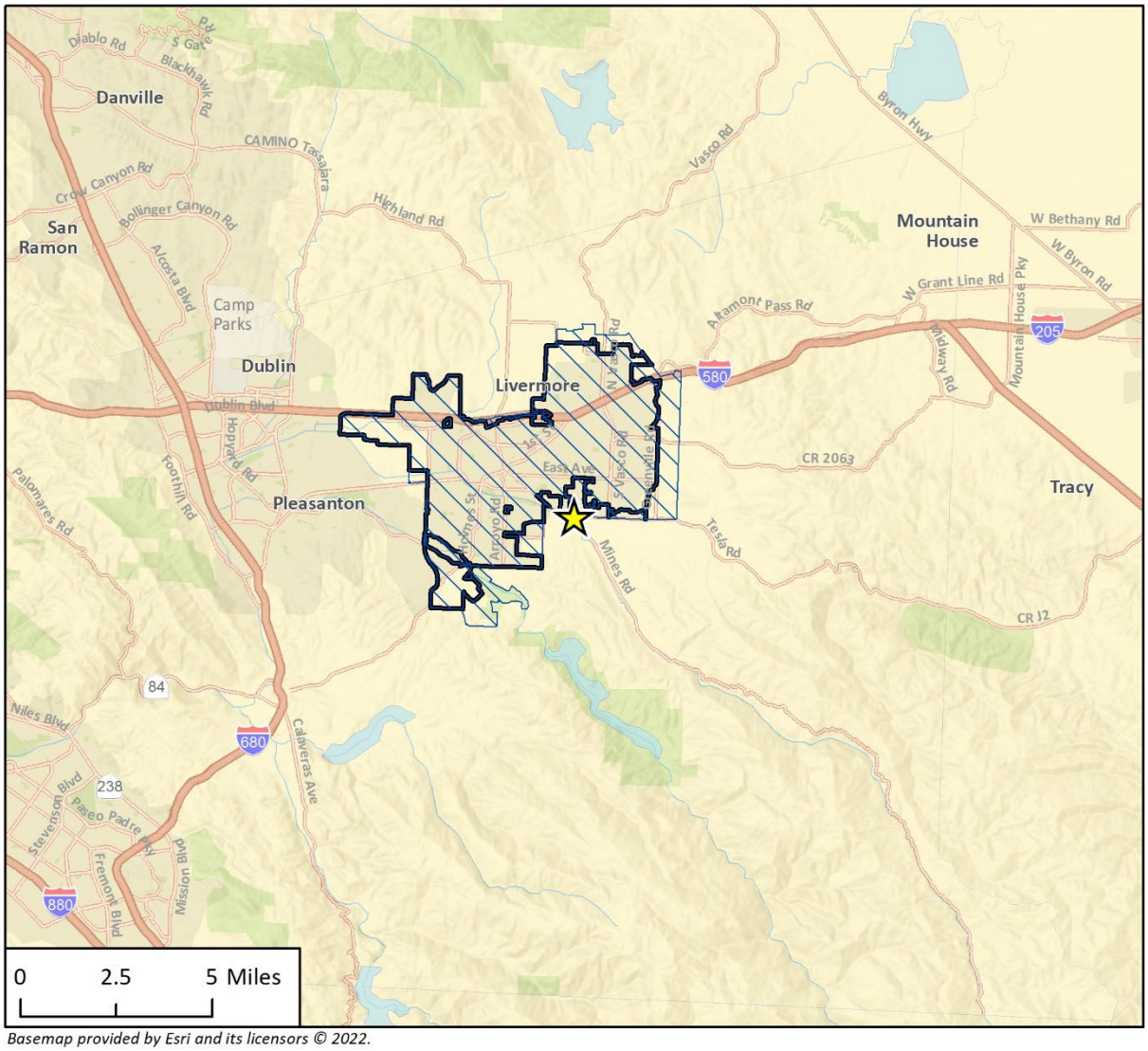
The project alignment is located within existing public roadway rights-of-way and is not zoned. A portion of the parcels adjacent to the project alignment are zoned by the City of Livermore, while others are zoned by Alameda County. Parcels zoned by the City primarily include Planned Development – South Livermore Valley Specific Plan (PD-SLVSP), along with one adjacent parcel zoned as Education and Institutions (E), one adjacent parcel zoned as Open Space Agricultural (OS-A), and one adjacent parcel zoned as South Livermore Valley Agricultural (SLV-AG) (City of Livermore 2015). Parcels zoned by Alameda County include Agriculture, Single Family Residential, and Planned Development (County of Alameda 2021). Generally, surrounding and adjacent parcels in the area consist of residential development, commercial development, vineyards and wineries, and open space uses compliant with City's General Plan Land Use element and the County's Zoning Ordinance. Furthermore, the project alignment is also located within the Vineyard Area of the SLVAP.

Surrounding Land Uses and Setting

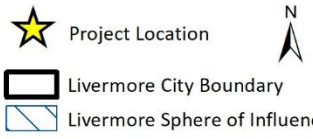
The project alignment is currently fully developed and would take place within existing paved rights-of-way. The alignment is predominately flat, with a gentle slope from approximately 566 feet above mean sea level (amsl) at the northern portion of the project alignment to approximately 591 feet amsl at the southern portion along Tesla Road. The alignment generally drains from the southeast to the northwest. The Bottleneck Project alignment is also predominately flat and currently a fully developed roadway and the project would take place within existing paved rights-of-way.

The SLVSP includes two Subareas (1 and 2) that are located adjacent to the project alignment. Subarea 1 is described as including horse ranches, the Stivers Academy elementary school, and Rios-Lovell Winery in the SLVSP, and is located north of the project alignment along Tesla Road east of South Vasco Road. Subarea 1 has since been developed with single-family residences, with the existing vineyard and winery still present within the subarea. Subarea 2 is described as including vineyards in the SLVSP, and is located north of the project alignment along Tesla Road between Buena Vista Avenue and South Vasco Road. Subarea 2 has since been developed with residences along Buena Vista Avenue and single-family residences surrounding the Bruno Canziani Neighborhood Park, with vineyards and wineries still present adjacent to Tesla Road and between the Buena Vista residences and Bruno Canziani neighborhood.

Figure 2-1 Regional Location



Basemap provided by Esri and its licensors © 2022.



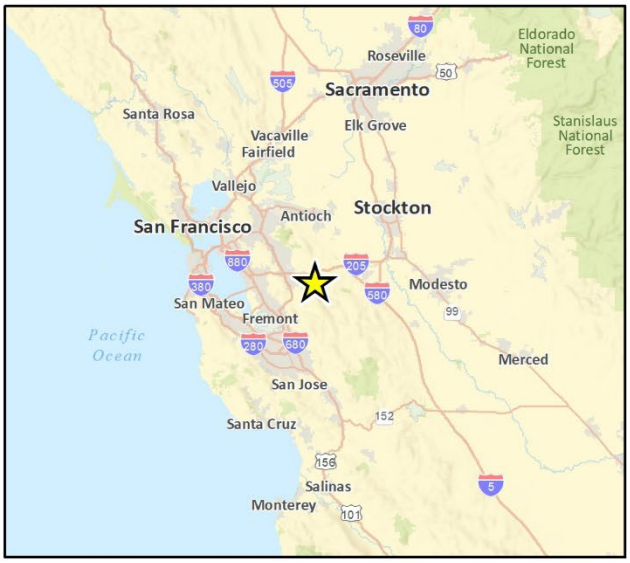
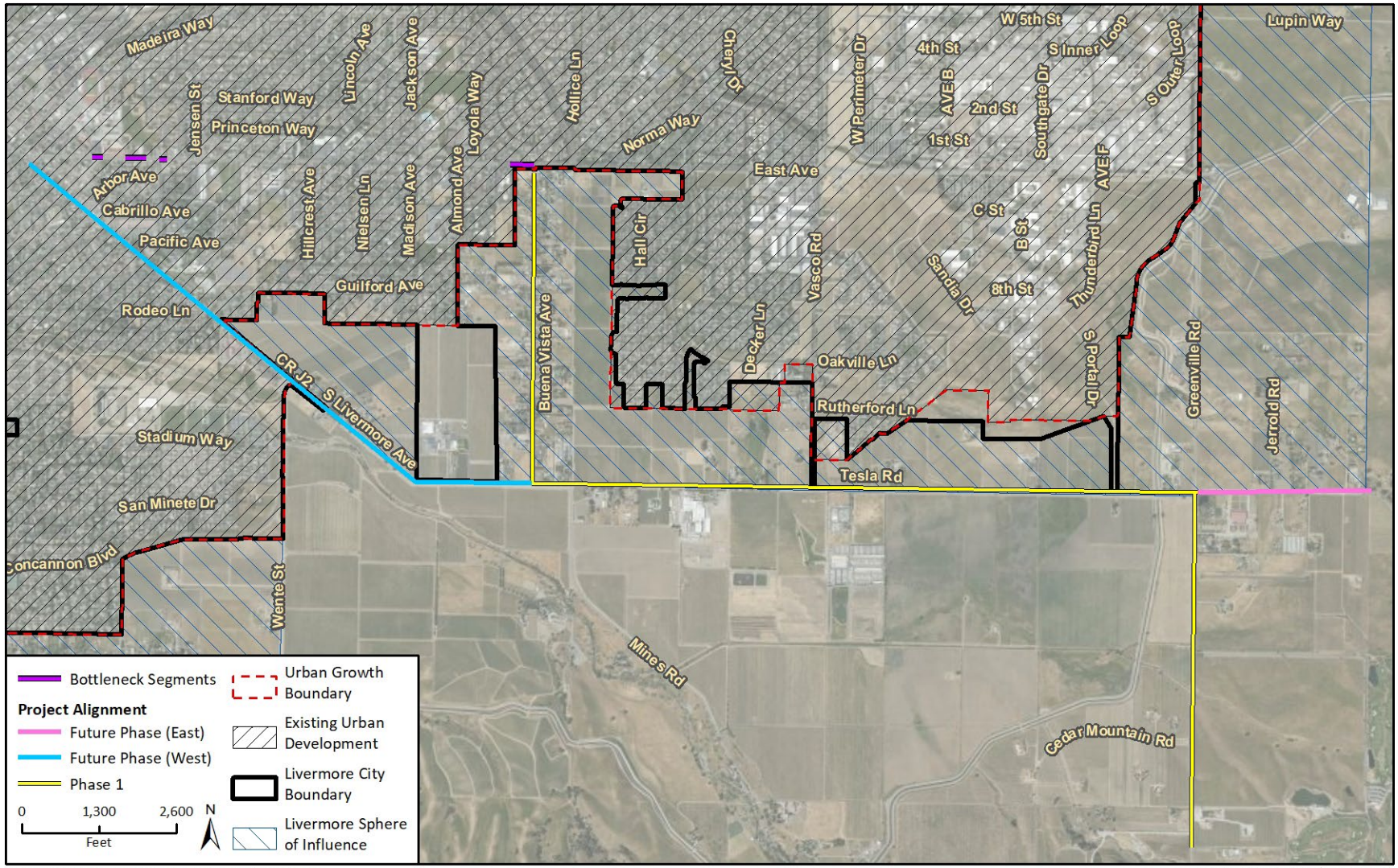


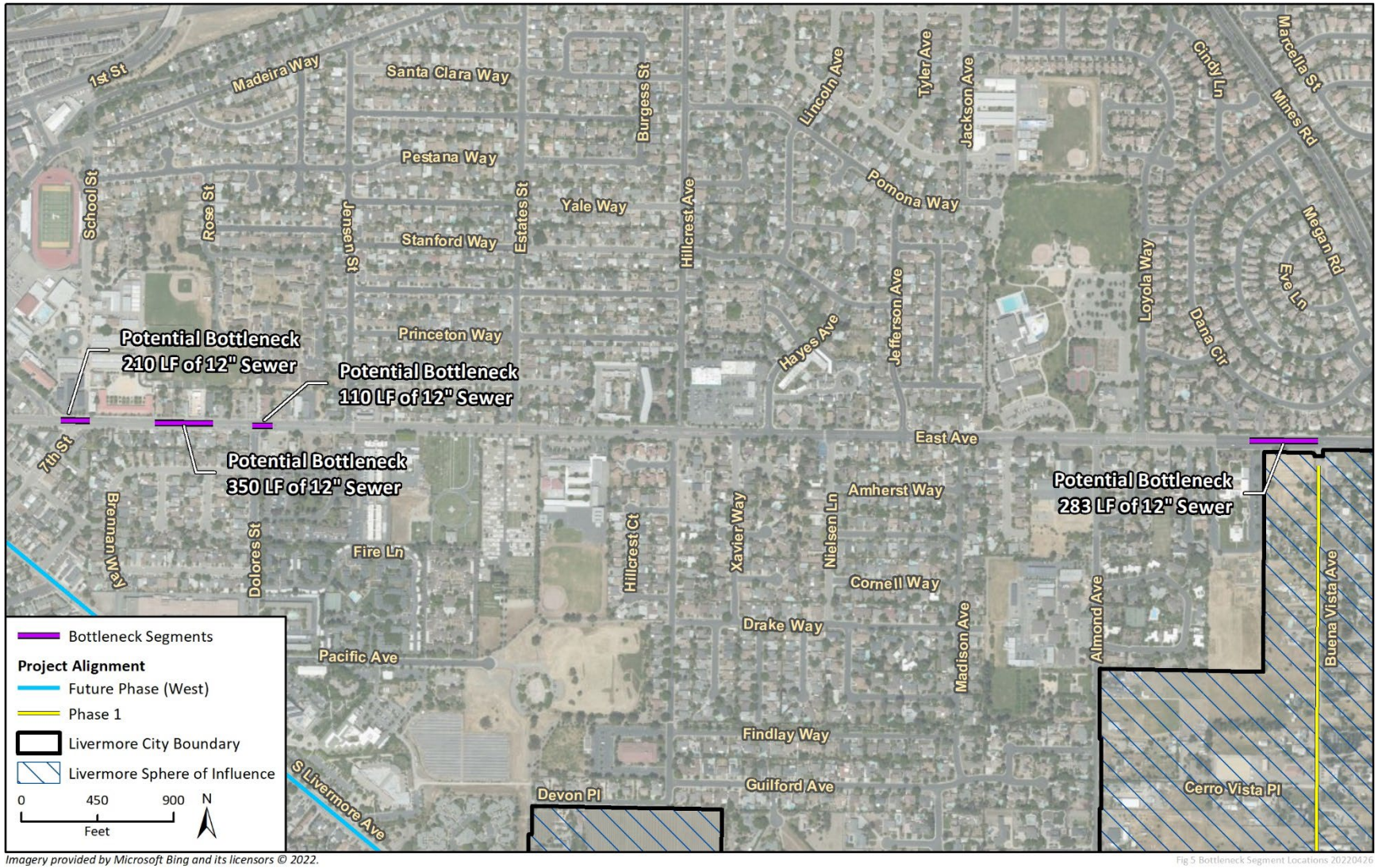
Figure 2-2 Project Location



Imagery provided by Microsoft Bing and its licensors © 2022.

Fig 2 Project Location - Landscape 20220504

Figure 2-3 Bottleneck Segment Locations



Imagery provided by Microsoft Bing and its licensors © 2022.

Fig 5 Bottleneck Segment Locations 20220426

Figure 2-2 shows the project alignment and surrounding land uses, which are primarily residential and agriculture, located directly along the alignment. The parcels directly bordering South Livermore Avenue and Tesla Road are in active agricultural uses (viticulture). Several parcels that directly border Buena Vista Avenue and Greenville Road are residential. Parcels located adjacent to the project alignment are zoned as PD - SLVSP with a General Plan designation of SLVSP. The nearest school, Livermore High School, is located adjacent to the Bottleneck Project on East Avenue.

2.3 Project Background

South Livermore Valley Area Plan

The County of Alameda adopted the South Livermore Valley Area Plan (SLVAP) in November 1992 as part of a collaborative effort between the cities of Pleasanton and Livermore, and Alameda County to create a planned area that preserves, promotes, and enhances viticulture and other cultivated agriculture. The SLVAP is a policy document that establishes criteria for future development for approximately 15,500 acres of undeveloped land in unincorporated areas south and east of the City of Livermore. The SLVAP limits development to areas that do not conflict with current or proposed agricultural uses in order to preserve and enhance viticulture and other cultivated agriculture. The County prepared a Draft EIR for the SLVAP (State Clearinghouse No. 1996052025). The Alameda County Planning Department certified the Final EIR (1992 EIR) and approved the project in November 1992 (County of Alameda 2003).

South Livermore Valley Specific Plan

The City adopted the SLVSP on November 17, 1997, and amended it in February 2004. In 1993, the City initiated the specific planning process to implement the urban component of the County's Area Plan to guide development and promote and enhance viticulture and agriculture in South Livermore Valley. The SLVSP is a policy document that establishes criteria and a regulatory framework for future development in South Livermore Valley, which is located south of the City of Livermore boundary. The SLVSP incorporates several goals, development standards and policies that aim to conserve agricultural and natural resources in the plan area. The City prepared a Draft Environmental Impact Report (EIR) for the SLVSP and General Plan Amendment (State Clearinghouse No. 96052025). The City certified the Final EIR and General Plan Amendment (1997 EIR) and approved the SLVSP in September 1997.

The proposed sewer expansion would remove a constraint to and serve development potential of adjacent parcels as envisioned under the SLVSP; therefore, this analysis relies on the 1997 EIR for the SLVSP.

South Livermore Urban Growth Boundary Initiative

In March 2000, the City of Livermore voters approved the South Livermore Urban Growth Boundary (UGB). This voter initiative adopted policies into the City's General Plan for the establishment of the UGB in South Livermore. The UGB forms a southern border, beyond which urban development (including extended sewer and water service) is permitted only under limited exceptions. In addition, the UGB further protects and enhances agriculture and open space in the South Livermore Valley Specific Plan (SLVSP) area by regulating where development is permitted within South Livermore. Finally, the initiative reduces urban sprawl by preventing uncontrolled urban development that could otherwise encroach into existing agricultural land or open space areas.

Figure 2-4 and Figure 2-5 show the UGB in relation to the proposed east and west segments of the project.

Because connection to urban services such as sanitary sewer is limited by the UGB, many residential and commercial uses in South Livermore Valley rely on on-site wastewater treatment systems (septic systems). In South Livermore Valley, the Regional Water Quality Control Board, County Department of Environmental Health, and Zone 7 Water Agency (Agencies) have restricted issuing permits for new septic systems or replacing failing septic systems.

The Agencies' positions reflect their missions to protect the Tri-Valley's groundwater basin. The Agencies have identified high nitrate concentrations in groundwater throughout the Tri-Valley resulting from past livestock operations and failing, undersized, or inefficient septic systems. These issues have the potential to adversely affect water quality and public health, safety, and quality of life. The inability to construct, expand, or replace septic systems or connect to the sanitary sewer is negatively affecting the South Livermore Valley wine industry and related uses thus preventing the vision of the Livermore General Plan, SLVAP and SLVSP.

Alameda Urban Growth Boundary Initiative

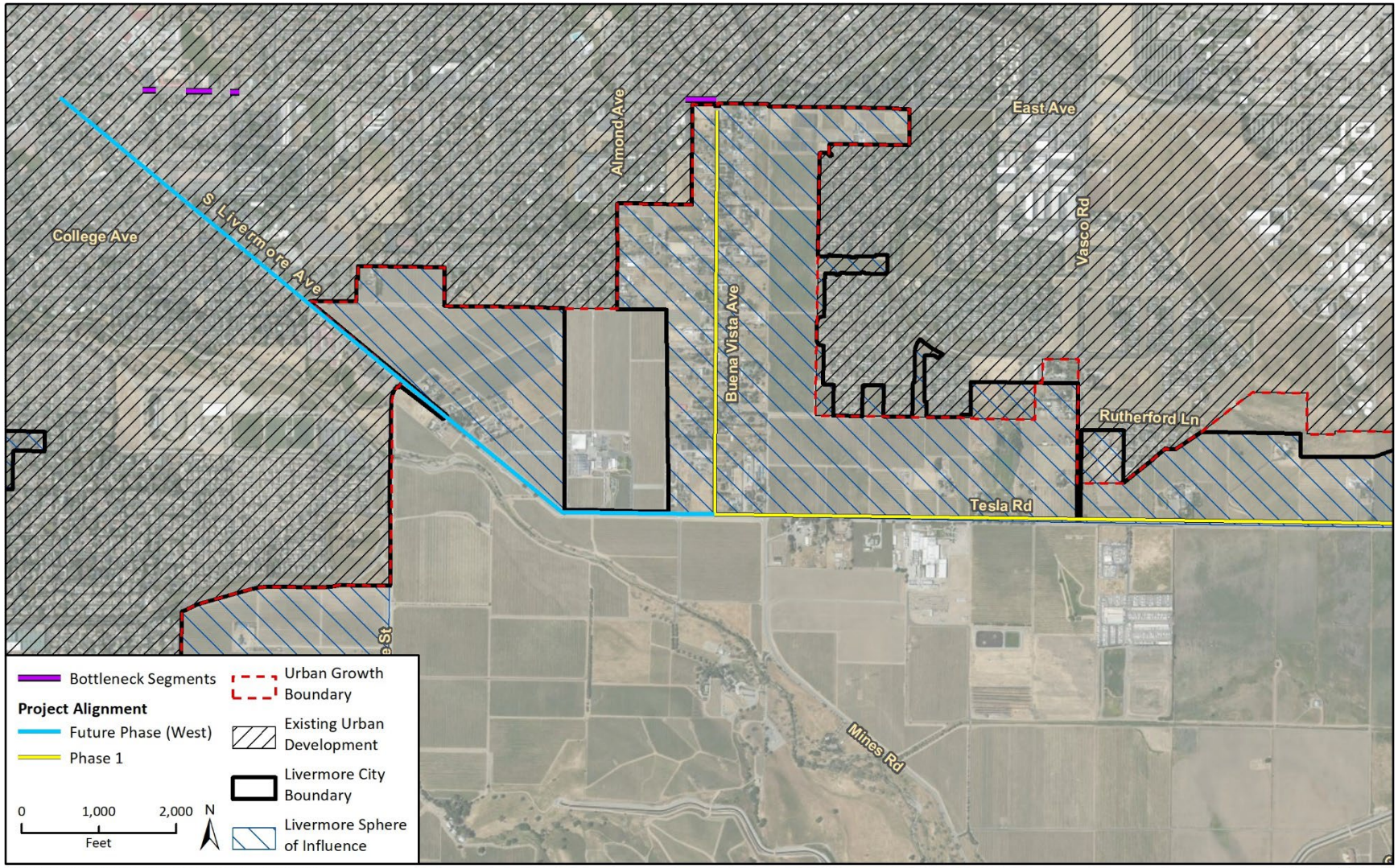
In November 2000, Alameda County voters passed Measure D. The purpose of Measure D is to preserve agricultural lands and to protect open space, watersheds, and wildlife habitat. Measure D set a county urban growth boundary that restricts subdivisions of the farms and ranches in eastern Alameda County, including North Livermore and the South Livermore Valley. Measure D amended portions of the County General Plan, including the East County Area Plan (ECAP). The initiative did not supersede or change the provisions of the SLVAP in the area to which the plan applied on February 1, 2000. However, the amended ECAP programs and policies place limits on density, development standards, and the geographical extent of the SLVAP.

2.4 Project Objectives

The objectives for the proposed project are as follows:

- Improve groundwater quality in the South Livermore Valley area relative to nitrates, which is associated with residential septic systems and livestock keeping
- Facilitate the development potential of existing and new wineries, visitor serving commercial uses, and residences consistent with the City's General Plan, SLVSP, and SLVAP subject to Alameda County Measure D.
- Enhance the short- and long-term economic viability of agriculture and viticulture in the South Livermore Valley area, consistent with Goals LU-13 and LU-14 of the City's General Plan

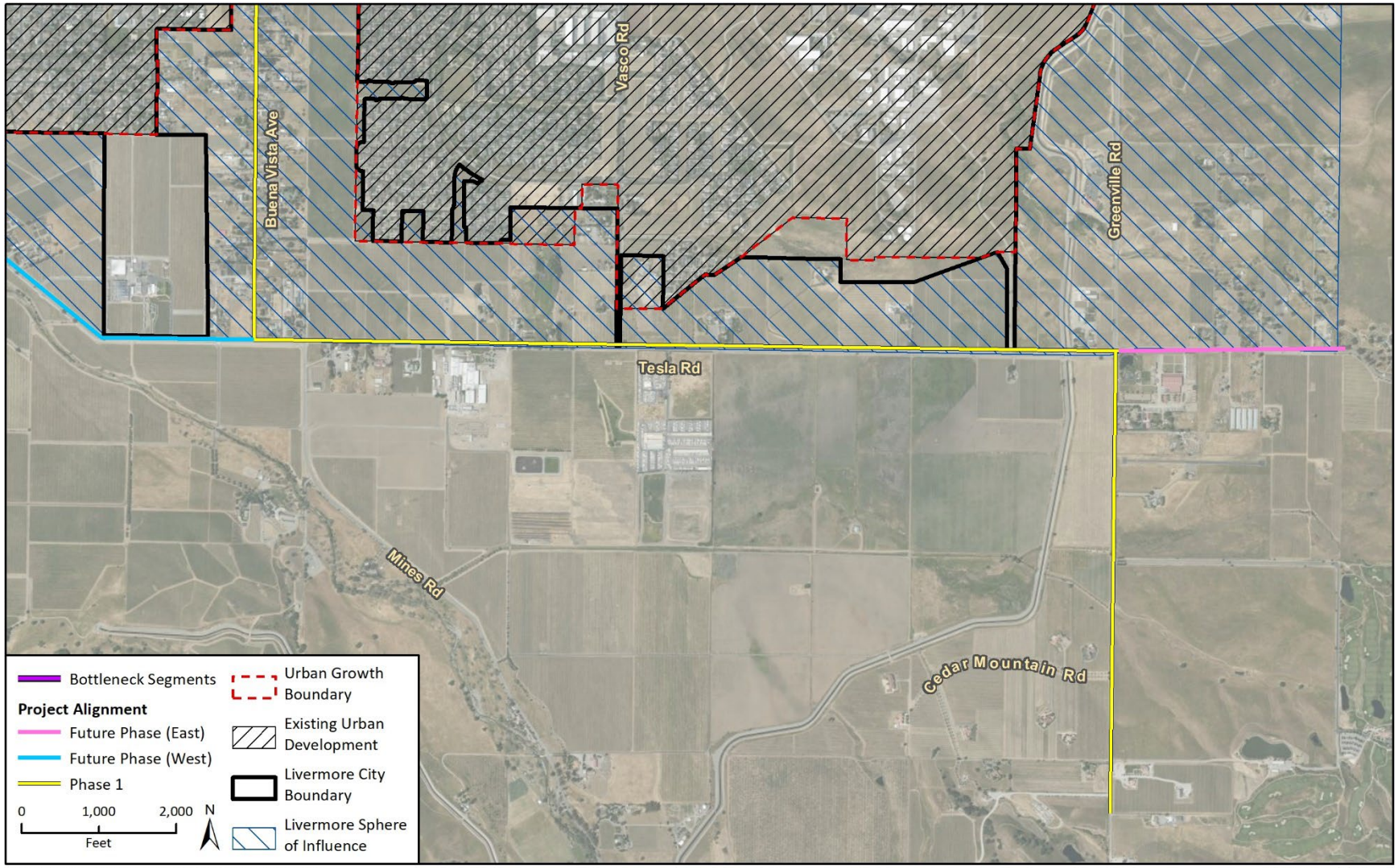
Figure 2-4 Sewer Extension and Urban Growth Boundary – West



Imagery provided by Microsoft Bing and its licensors © 2022.

Fig 3 Conceptual Plans_West

Figure 2-5 Sewer Extension and Urban Growth Boundary – East



Imagery provided by Microsoft Bing and its licensors © 2022.

Fig 3 Conceptual Plans_West

2.5 Proposed Project Elements

The project would amend the South Livermore Valley UGB language to allow the extension of sanitary sewer lines to serve adjacent parcels containing residences and wineries located within and near the City of Livermore. This amendment would allow for the installation of approximately 5 miles of new sewer lines to support existing uses and future development consistent with the General Plan, SLVSP, and SLVAP in South Livermore Valley, subject to Alameda County Measure D. The purpose of the project is to improve groundwater quality in the South Livermore Valley area, serve existing development potential consistent with the City's General Plan and SLVSP, and enhance the short- and long-term economic viability of agriculture and viticulture in the South Livermore Valley area. Subject to necessary approvals and annexation into the City, the project would also allow existing residences to connect to the City's wastewater system and cease the use of their on-site septic systems. The project is intended to support uses that are consistent with the City's General Plan, SLVSP, or current zoning; should development on adjacent parcels that is not consistent with existing land use designations and zoning be proposed, additional CEQA review would be required.

Phase 1 of the proposed sewer extension would be installed Tesla Road from Buena Vista Avenue to Greenville Road, within Buena Vista Avenue from East Avenue to Tesla Road, and within Greenville Road from Tesla Road to approximately 5,900 feet south of Tesla Road. The expanded sewer facilities would allow existing and future wineries, visitor serving uses, and residences to connect to the City's wastewater system in conformance with the Livermore General Plan, South Livermore Valley Specific Plan, and/or South Livermore Valley Area Plan, subject to the provisions of Alameda County Measure D.

The City's 2017 Sewer Master Plan also identifies a Bottleneck Project (BO-CIP-P06) located on East Avenue. Preliminary analysis of the proposed project identified four segments of 12-inch sewer pipes that may need to be upsized on East Avenue between Maple Street and Buena Vista Avenue (City of Livermore 2017). The locations of each segment are shown in Figure 2-3. In total, approximately 950 linear feet (LF) would need to be upsized to accommodate the proposed project. Therefore, the proposed project may require the Bottleneck Project to be undertaken sooner than originally anticipated.

Two potential future phases of the sewer alignment would install sewer pipelines within South Livermore Avenue from approximately 520 feet northwest of Concannon Boulevard to Tesla Road, and on Tesla Road from South Livermore Avenue to Buena Vista Avenue (western future phase); and within Tesla Road from Greenville Road to approximately 3,000 feet east of Greenville Road (eastern future phase). The western future phase would provide redundancy within the sewer collection system, and the eastern future phase would expand the availability of services to several parcels east of Greenville Road.

The project would not require ground disturbance in agricultural or other natural areas, nor would it require vegetation removal.

Construction

Construction is anticipated to commence in 2024 and last for approximately 12 months, ending in 2025. The project may be constructed in phases based on available funding. Construction would require one lane of the affected public roadways to be closed at any given time. To that end, a traffic control plan is proposed that would regulate worker parking, construction staging, roadway improvements and potential traffic detours during project construction. Construction staging, laydown areas, and worker parking would be provided along the project alignment into one travel lane, one bike lane, and one shoulder. The contractor may work with private property owners as feasible, or use the City's Maintenance Service Center for additional staging. The City would post signage along the alignment and on roadways leading up to it before and during construction to give advance warning of road closures and detours. Detour signs for bicycle lane users would also be provided to facilitate safe crossing while portions of the bicycle lanes are closed.

Construction would occur 5 days per week to expedite the work and minimize traffic impacts. Limited weekend work may occur to accommodate the project schedule at the discretion of the City; however, total working days per month are not expected to exceed 22 days. Construction of the project would involve the installation of approximately 27,000 LF of sewer. If the contractor installs 150 LF per day as anticipated, then this would take approximately 180 working days. Equipment would include excavators, backhoes, front loaders, dump trucks, and shoring and paving equipment.

Excavation depths would vary by location, with most depths between 5 and 15 feet below ground surface. Approximately 1,000 LF along Greenville Road south of Tesla Road would require excavation between 15 and 18 feet, and approximately 1,200 LF along Tesla Road east of Vasco Road would require excavation between 15 and 26 feet.

Daily construction tasks would include excavation/grading, installing pipe, backfilling, patching pavement, and coordinating traffic control. Once an area is complete, final paving would be installed over the trench. Approximately 20 feet of width in the daily work area would be required. There is approximately 40 feet of pavement width on South Livermore Avenue, Tesla Road, Buena Vista Avenue, and Greenville Road. Therefore, construction would either require one-way traffic around the active work zone with one bike lane open, or two-way traffic without a bike lane. Once an area is completed, final paving over the trench and one foot beyond the trench would be installed. The County may require the entire road to be slurry sealed. The project would not increase the total impervious area.

In accordance with the Construction General Permit (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ), the proposed project would implement a Stormwater Pollution Prevention Plan (SWPPP) that would include the use of best management practices (BMPs) during project construction. The project would require approximately 27,000 cubic yards of excavation, of which approximately 26,400 cubic yards would be used as backfill. Approximately 2,140 cubic yards of asphalt is anticipated to be exported. The Bottleneck Project may require roadway closures similar to the expansion project, and construction staging would occur on an adjacent property.

2.6 Required Approvals

The City of Livermore is the lead agency for the CEQA documentation and process. The modified UGB language must be approved by the voters of the City of Livermore. The project would require the following approvals from the City of Livermore:

- City Council certification of a Supplemental EIR prepared in accordance with CEQA prior to approving the modified UGB language.
- City Council approval of language to modify the UGB and place on the ballot.

The project would also require the following:

- Approval of the modified UGB language by a majority of voters.

The project would require the following approvals from the County of Alameda:

- Encroachment Permit
- Traffic Control Plan

Following project completion, individual properties would require subsequent approvals including permitting and service agreements with the City subject to Alameda County Local Agency Formation Commission approval, County, and/or Livermore-Amador Valley Water Management Agency, prior to connection to the wastewater system.

2.7 Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

In accordance with Public Resources Code (PRC) Section 21080.3.1, the City sent consultation request letters to two tribes (Amah Mutsun Tribal Band of Mission San Juan Bautista and Ione Band of Miwok Indians).

3 Environmental Setting

This section provides a general overview of the environmental setting for the proposed project. More detailed descriptions of the environmental setting for each environmental issue area can be found in Section 4, *Environmental Impact Analysis*.

3.1 Regional Setting

The project alignment is located within unincorporated Alameda County, in the East Bay region of the San Francisco Bay Area. The East Bay region generally includes cities along the eastern shores of the San Francisco Bay and San Pablo Bay and inland communities in Alameda and Contra Costa counties. Approximately one-third of the Bay Area's population resides in the East Bay. Figure 2-1 in Section 2, *Project Description*, shows the regional location of the project alignment.

The City of Livermore has a population of 91,216 people and is the fifth largest city in Alameda County in population, following Oakland, Fremont, Hayward, and Berkeley (California Department of Finance 2021). Livermore is bordered by the City of Pleasanton to the west, the City of Dublin to the northwest, and unincorporated Alameda County to the north, east, and south.

Since the certification of the 1997 EIR, the regional setting has not changed substantially. Livermore is located in the San Francisco Bay Hydrologic Region. Drainage flows generally to the west towards the San Francisco Bay. Livermore is in a seismically active region, with the Greenville Fault, Las Positas Fault, and Calaveras Fault all in the project vicinity. The nearest active fault is the Las Positas Fault, which intersects a portion of the project alignment along Tesla Road (Appendix IS).

Roadways, including arterials, collectors, and local streets, provide vehicular access throughout the city. Major roadways include Livermore Avenue, First Street, East Stanley Boulevard, Holmes Street, Murrieta Boulevard, and East Avenue; these roadways converge in the City's Downtown in a radial system. Interstate 580 (I-580) and State Route 84 (SR 84) provide regional access to Livermore and connect the Bay Area with San Joaquin County.

Livermore enjoys a mild climate characterized by cool winters and warm summers. Average high temperatures range from 56°F in January to 83°F in June. Annual rainfall averages approximately 15.2 inches, with most rainfall occurring between December and March (U.S. Climate Data 2022).

3.2 Project Site Setting

The project alignment is located in southern Livermore, along South Livermore Avenue, Tesla Road, Buena Vista Avenue, and Greenville Road. One portion of the project alignment is located within the City's Sphere of Influence boundary, and another portion is located within the City of Livermore. I-580 is approximately 2.6 miles north of the proposed alignment. The Bottleneck Project is located in segments along East Avenue.

As discussed in Section 2, *Project Description*, the project alignment is located within existing public roadways rights-of-way and does not have a land use or zoning designation. Parcels along the alignment are designated as Agriculture/Viticulture (AGVT), Rural Residential (RR), Urban High Residential (UH), Urban Medium High Residential (UMH), Community Facility (CF) Parks, Trailways, Recreation Area (OSP), Agricultural Preserve (SV-AP), and Vineyard Commercial (SV-VC) land uses.

City-zoned parcels adjacent to the proposed alignment included Planned Development—South Livermore Valley Specific Plan (PD-SLVSP), Education and Institutions (E), Open Space Agriculture (OS-A), and South Livermore Valley Agricultural (SLV-AG) (City of Livermore 2015). County-zoned parcels adjacent to the project alignment include Agriculture, Single Family Residential, and Planned Development (County of Alameda 2021).

3.3 Cumulative Development

As defined in *CEQA Guidelines* Section 15335, "cumulative impacts" refers to two or more individual impacts that, when considered together, are substantial or will compound other environmental impacts. Cumulative impacts are the changes in the environment that result from the incremental impact of development of the proposed project and other nearby projects. For example, transportation impacts of two nearby projects may be insignificant when analyzed separately but could have a significant impact when analyzed together. Cumulative impacts analysis provides a reasonable forecast of future environmental conditions and can more accurately gauge the effects of a series of projects. According to *CEQA Guidelines* Section 15130(b), a discussion of significant cumulative impacts shall include a list of past, present, and probably future projects related to cumulative impacts; or a summary of projections contained in an adopted local, regional, or statewide plan that describes or evaluates conditions contributing to the cumulative effect.

The cumulative setting for each environmental issue area is described in Section 4, *Environmental Impact Analysis*. The project alignment is located geographically in the southern portion of Livermore; however, cumulative impacts as analyzed in this Supplemental EIR may be spread throughout Livermore or the region. Cumulative impact discussions of hydrology and water quality, and utilities and service systems, rely on larger geographic areas such as the hydrologic region, watershed, or utility district boundary.

CEQA requires cumulative impact analysis in Supplemental EIRs to consider either a list of planned and pending projects that may contribute to cumulative effects or a forecast of future development potential. Currently planned and pending projects in Livermore and surrounding areas are listed in Table 3-1. In particular, the 220 Greenville Road Project, 3258/3322 East Avenue Project, 3356 East Avenue Project, and 3451 East Avenue Project are either located in proximity or along the same major arterial as the project alignment or Bottleneck Project. This list of projects is an update to the cumulative setting from the 1997 EIR. The 1997 EIR considered development of cumulative projects through the year 2020; therefore, the cumulative time frame has also been extended in this EIR to account for the passage of time. It should be noted that the projections provided in the 1997 EIR for anticipated growth in the City of Livermore for 2010 exceed the actual growth experienced. In fact, in 2021 the City had a population of 91,216 and 33,004 housing units (California Department of Finance 2021). The 1997 EIR anticipated a population of 98,200 and 35,100 housing units in 2010 for the city.

Table 3-1 Cumulative Projects List

Project No.	Project Location	Land Use	Project Details
County of Alameda[1]			
1	8588 Tesla Road	Agriculture: cannabis cultivation	Outdoor cannabis cultivation project on a 4.36-acre parcel.
City of Livermore[2]			
2	220 Greenville Road	Commercial	111-room Fairfield Inn and Suites hotel
3	2108 Third Street	Mixed-Use	Three-story mixed-use building
4	4696 Bennett Drive	Residential	437-unit residential subdivision, with mixed-unit type buildings
5	3258/3322 East Avenue	Residential	33-unit, three-story residential care facility
6	3356 East Avenue	Residential	7,668-square foot addition to an existing Senior Living Facility, with 13 new beds
7	1934 First Street	Residential/Commercial	221 new apartment units and 12,000 square feet of new commercial development
8	3733 First Street	Residential	101 new townhomes
9	4260 First Street	Residential	Six new apartment buildings with 44 units
10	460 N. Livermore Avenue	Mixed-Use	Mixed-use development with three separate buildings containing 24 total units of low-income housing, a resource center, and a food service kitchen
11	2855 Old First Street	Residential	Subdivision of two parcels with 7 new residential units
12	2787 Old First Street	Residential	Subdivision of two parcels with 7 new residential units
13	3541 East Avenue	Residential	9 new townhomes
14	434-454 School Street	Residential	Three-lot residential subdivision

[1] County of Alameda planned project details were sourced from the County of Alameda Community Development Agency (2021).

[2] City of Livermore planned project details were sourced from the City of Livermore Community Development Department (2021).

This page intentionally left blank

4 Environmental Impact Analysis

This section discusses the possible environmental effects of the South Livermore Sewer Expansion Project (proposed project) for the specific issue areas that were identified through the scoping process as having the potential to experience significant effects. "Significant effect" is defined by the *CEQA Guidelines* Section 15382 as:

> "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment but may be considered in determining whether the physical change is significant."

The assessment of each issue area begins with a discussion of the environmental setting related to the issue, which is followed by the impact analysis. In the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria adopted by the City and other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. The next subsection describes each impact of the proposed project, mitigation measures for significant impacts, and the level of significance after mitigation. Each effect under consideration for an issue area is separately listed in bold text with the discussion of the effect and its significance. Each bolded impact statement also contains a statement of the significance determination for the environmental impact as follows:

- **Significant and Unavoidable**. An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved pursuant to *CEQA Guidelines* Section 15093.
- **Less than Significant with Mitigation Incorporated**. An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under *CEQA Guidelines* Section 15091.
- **Less than Significant**. An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact**. The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Following each environmental impact discussion is a list of mitigation measures (if required) and the residual effects or level of significance remaining after implementation of the measure(s). These are also summarized in the Executive Summary of this Supplemental EIR. In cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed and evaluated as a secondary impact. The impact analysis concludes with a discussion of cumulative effects, which evaluates the impacts associated with the proposed project in conjunction with other planned and pending developments in the area listed in Section 3, *Environmental Setting*.

This page left intentionally blank

4.1 Hydrology and Water Quality

This section evaluates the potential environmental effects of the proposed project related to water quality, drainage, groundwater, and flooding. The analysis includes a review of surface water, groundwater, inundation zones, and water quality. Water supply is discussed in Section 4.2, *Utilities and Service Systems*. Wetlands and waters of the U.S. are discussed in the Initial Study in Environmental Checklist Section 4, *Biological Resources*, provided as an attachment to this document (Appendix IS). Assessment of impacts is based partially on pertinent analysis provided in the 1997 EIR, which evaluated impacts of development potential under the SLVSP.

4.1.1 Setting

The City of Livermore is located in the easternmost portion of the San Francisco Bay Area of California, approximately 34 miles east of Oakland and 46 miles east of San Francisco within Alameda County. Weather in the City is characterized by a warm and temperate climate with hot, arid summers and cold, wet winters. Rainfall is concentrated in the winter months with the wettest months being January and February, which each have average monthly rainfall totals of 2.9 inches (U.S. Climate Data 2021).

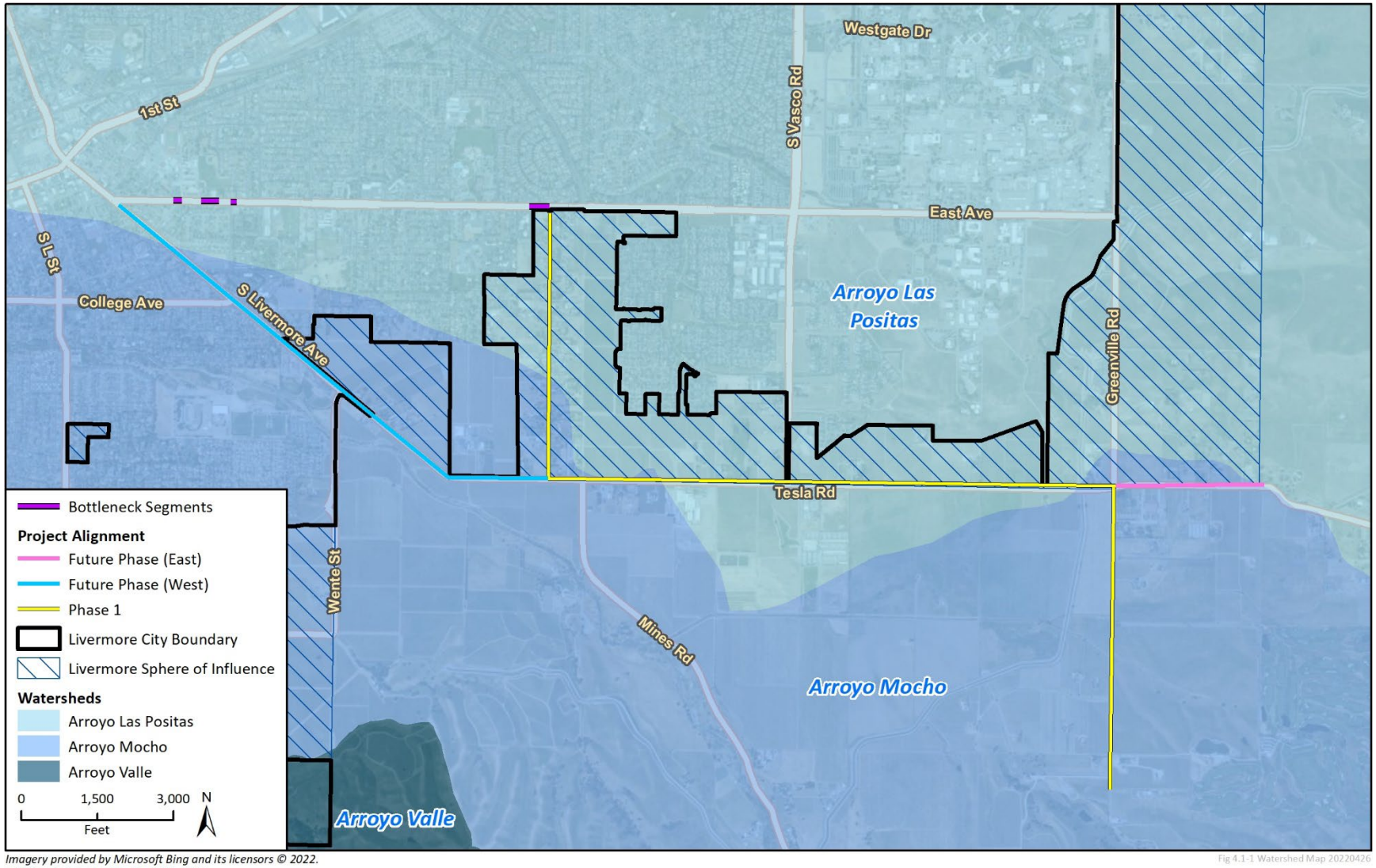
a. Surface Water and Drainage

The California Department of Water Resources (DWR) divides surface watersheds in California into 10 hydrologic regions. The project alignment is within the San Francisco Bay hydrologic region, which covers approximately 4,500 square miles of California. The San Francisco Bay is an estuary with a deep central channel, broad mudflats, and fringing marsh. Water features in the region either flow into the estuary or into the Pacific Ocean. The San Francisco Bay Hydrological Region includes all of San Francisco County and parts of Marin, Sonoma, Napa, Solano, San Mateo, Santa Clara, Contra Costa, and Alameda Counties. Significant geographic features include the Santa Clara, Napa, Sonoma, Petaluma, Suisun-Fairfield, and Livermore valleys; the Marin and San Francisco peninsulas; San Francisco, Suisun, and San Pablo bays; and the Santa Cruz Mountains, Diablo Range, Bolinas Ridge, and Vaca Mountains of the Coast Ranges (DWR 2015).

DWR subdivides hydrologic regions into hydrologic units. Within the San Francisco Bay hydrologic region, the City is located entirely in the South Bay hydrologic unit and is under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (RWQCB) (Region 2). The State Water Board administers water rights, water pollution control, and water quality functions for the state and provides both policy guidance and budgetary authority to Regional Water Control Boards, who are then able to conduct planning, permitting, and enforcement activities (San Francisco Bay RWQCB 2019).

Within the South Bay hydrologic unit, the project alignment extends across two watersheds: the Arroyo Mocho Watershed (hydrologic unit code 1805000403) and the Arroyo Las Positas Watershed (hydrologic unit code 1805000402) (refer to Figure 4.1-1). The southwestern and southeastern portion of the project alignment, including most of South Livermore Avenue, the western and eastern portions of Tesla Road, the southern portion of Buena Vista Avenue, and all of Greenville Road, is within the Arroyo Mocho Watershed. The remainder of the project alignment including East Avenue, the northern portion of South Livermore Avenue, the central portion of Tesla Road, and the northern half of Buena Vista Avenue, is within the Arroyo Las Positas Watershed.

Figure 4.1-1 Watershed Map



Imagery provided by Microsoft Bing and its licensors © 2022.
Additional data provided by NHD, 2021.

Fig 4.1-1 Watershed Map 20220426

The Arroyo Mocho Watershed drains approximately 97 square miles (University of California [UC] Davis 2021a). Arroyo Mocho originates near Mount Mocho of the Diablo Range in the northeastern corner of Santa Clara County and flows west to meet South San Ramon Creek near Pleasanton and Dublin, where it becomes Arroyo de la Laguna. Arroyo de la Laguna continues west to converge with Alameda Creek, and eventually drains into the San Francisco Bay (United States Geological Survey [USGS] 2021). The Arroyo Mocho Watershed is dominated by agricultural land use designations, but also includes urban areas of Livermore and Pleasanton.

The Arroyo Las Positas Watershed drains approximately 81 square miles (UC Davis 2021b). Arroyo Las Positas originates north of I-580 near the City of Livermore at the confluence of Altamont Creek and Arroyo Seco, and converges with Arroyo Mocho between Pleasanton and Dublin (USGS 2021). The Arroyo Las Positas Watershed is also dominated by agricultural land use designations and includes a portion of Livermore's eastern urban areas.

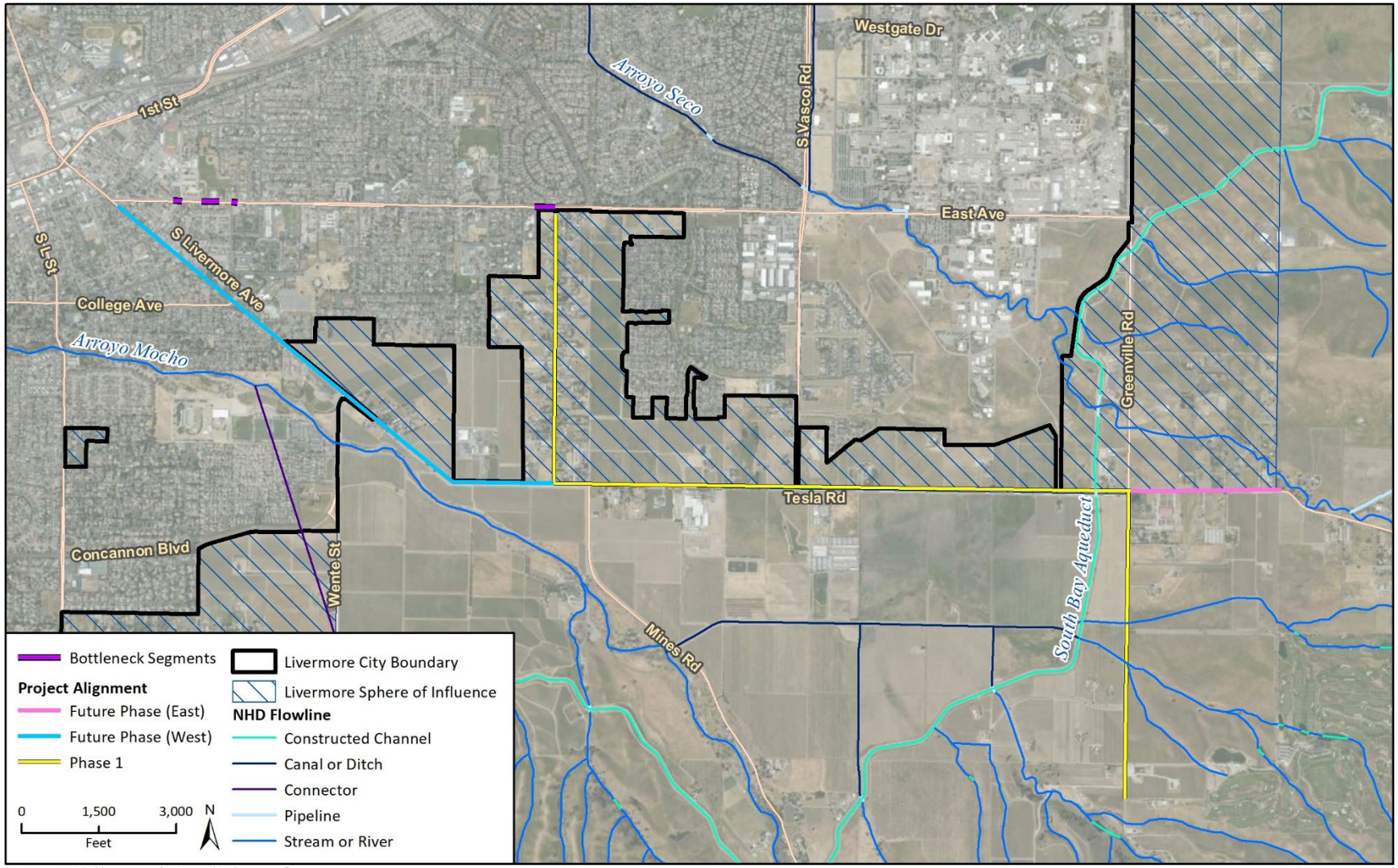
Figure 4.1-2 identifies surface waters and existing drainages, both natural and manmade, in the vicinity of the project alignment. The major surface water features near the project alignment are Arroyo Mocho and Arroyo Seco (City of Livermore 2015). The project alignment is predominately flat, with a gentle slope from approximately 510 feet above mean sea level at the northwestern portion of the project alignment at the intersection of South Livermore Avenue and East Avenue to approximately 720 feet above mean sea level at the southeastern portion of the project alignment at the intersection of Tesla Road and Greenville Road. Overall, surface waters in Livermore Valley drain westerly to the Arroyo de la Laguna and Alameda Creek, eventually reaching the San Francisco Bay and Pacific Ocean. Impervious surfaces within the project alignment include major and minor roadways and impervious surfaces alongside the alignment include residential and commercial development.

Storm drains generally serve the roadways and developed areas of the City. The existing storm drainage system largely consists of underground pipes and local creeks that carry runoff within the drainage basin to nearby flood control channels and arroyos (City of Livermore 2015). The Alameda County Flood Control and Water Conservation District's Zone 7 (Zone 7) owns and maintains the majority of storm drainage facilities, while the City owns the storm drain mains, collection pipes, culverts, and drainage ditches. Storm drain infrastructure (i.e., curb and gutter) is located along East Avenue, South Livermore Avenue, and the portion of Tesla Road west of Mines Road. Catch basins are located on South Livermore Avenue, on Tesla Road at its intersection with Mines Road, and on East Avenue. There is no storm drain infrastructure located along the portion of Tesla Road east of Mines Road, Buena Vista Avenue, or Greenville Road. Stormwater along these roads is transported via roadside ditches. The Alameda County Flood Control and Water Conservation District is ultimately responsible for flood control and stream management along the project alignment (City of Livermore 2015). Stormwater from the project alignment primarily drains from the southeast to the northwest, and eventually to the San Francisco Bay.

b. Groundwater Resources

According to the California Department of Water Resource's Groundwater Bulletin 118, the City of Livermore and the project alignment overlies the Livermore Valley Groundwater Basin (Basin 2-10), which is managed by the Zone 7 Water Agency (Zone 7). The basin is located approximately 40 miles east of San Francisco and 30 miles southwest of Stockton within a structural trough of the Diablo Range. The basin spans from the Altamont Hills 14 miles east to the Pleasanton Ridge and stretches from the Livermore Upland 3 miles north to the Orinda Upland (DWR 2006). The basin includes approximately 772 wells, including water supply wells, domestic and livestock supply wells, and

Figure 4.1-2 Surface Water and Drainage Map



Imagery provided by Microsoft Bing and its licensors © 2022.
Additional data provided by NHD, 2021.

Fig 4.1-2 Surface Waters 20220426

monitoring wells to track groundwater quality and flow patterns. Overall, approximately 30 percent of the total water supply for the Zone 7 service area is extracted from the groundwater basin (Groundwater Exchange 2021).

The general groundwater gradient is east to west, and south towards the Arroyo de la Laguna. Faults are the major structural features that restrict the lateral movement of groundwater in the basin, and the resulting groundwater levels are higher on the up-gradient side (east) in Livermore Valley. Groundwater-bearing materials can be found beneath the entire floor of Livermore Valley and portions of the upland areas surrounding the valley. These materials consist of continental deposits from alluvial fans, outwash plains, and lakes (DWR 2006).

In 2002, the total storage capacity of the Livermore Valley Groundwater Basin was estimated at 500,000 acre-feet (af). Zone 7 maintains an annual hydrologic inventory of supply and demand in the basin. At the end of water year 2020, the total storage capacity of the Livermore Valley Groundwater Basin was estimated at 247,232 af (Zone 7 Water Agency 2021). Table 4.1-1 identifies the inflow and outflow volumes of groundwater in the basin for water year 2020.

Table 4.1-1 Groundwater Basin Inflow and Outflow Volumes

Category	Water Year 2020 (acre-feet)
Total Groundwater Inflow	**13,515**
Stream Recharge Artificial	2,461
Stream Recharge Natural	3,511
Rainfall Recharge	2,869
Applied Water Recharge	2,465
Pipe Leakage	1,209
Subsurface Inflow	1,000
Total Groundwater Outflow	**21,447**
Zone 7 Pumping	11,101
Other Pumping	5,248
Agricultural Pumping	112
Mining Losses	700
Evapotranspiration	4,140
Subsurface Outflow	146

Source: Zone 7 Water Agency 2021

Artificial recharge is the practice of increasing the amount of water that enters an aquifer through human-controlled means, which is managed by Zone 7. Natural recharge is not managed or pumped by Zone 7, and rather occurs as water infiltrates into soils and moves through pore spaces down to the water table. Applied water recharge is considered natural recharge because of its steady, sustainable, contribution to groundwater recharge from irrigation (Zone 7 Water Agency 2021). Subsurface inflow comes from the natural flow of water beneath earth's surface as part of the water cycle; for the Livermore Valley Groundwater Basin, subsurface inflow is from the Northern Fringe Basin, which is a water-bearing area outside of the Main Livermore Valley Groundwater Basin (Zone 7 Water Agency 2021). Similarly, subsurface outflow is overflow groundwater leaving the Basin. Other pumping demands include pumping by the City of Pleasanton, California Water Service, San Francisco Public Utilities Commission, Alameda County Fairgrounds, domestic pumping from active

domestic, supply, and potable wells, and pumping by golf courses (Zone 7 Water Agency 2021). Agricultural pumping in the Livermore Valley Groundwater Basin is unmetered and strictly for agricultural use.

c. Water Quality

Surface Water

Stormwater runoff transports pollutants from urban development, agricultural areas, streets, parking lots, and other sources to local waterways. Major sources of surface water pollution, such as construction sites, parking lots, and household and industrial sites, contribute petroleum hydrocarbons, metals, fertilizers, insecticides, and other chemicals to the water system (City of Livermore 2015). Activities such as land clearing, excavation and filling, illegal dumping, municipal operations, improper disposal of pet waste, and use of fertilizers, pesticides, and herbicides can exacerbate stormwater pollution.

Water quality in the area is governed by the San Francisco Bay RWQCB, which sets water quality standards in the *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan, San Francisco Bay RWQCB 2019). The Basin Plan identifies beneficial uses for surface water and groundwater and establishes water quality objectives to attain those beneficial uses. The identified beneficial uses and water quality objectives to maintain or achieve those uses are together known as water quality standards. The San Francisco Bay RWQCB designates beneficial uses for some individual water bodies in the San Francisco Bay Basin. All other water bodies not designated individually are assigned the designated uses of municipal and domestic water supply and protection of recreation and aquatic life. Table 4.1-2 presents the designated beneficial uses listed in the Basin Plan for the surface waters in the vicinity of the project alignment.

Table 4.1-2 Beneficial Uses for Surface Waters

Water Body	Beneficial Uses
Arroyo Mocho	Groundwater Recharge, Cold Freshwater Habitat, Fish Migration, Fish Spawning, Warm Freshwater Habitat, Wildlife Habitat, Water Contact Recreation, Noncontact Water Recreation
Arroyo Las Positas	Groundwater Recharge, Cold Freshwater Habitat, Fish Migration, Preservation of Rare and Endangered Species, Fish Spawning, Warm Freshwater Habitat, Wildlife Habitat, Water Contact Recreation, Noncontact Water Recreation
Arroyo Seco	Groundwater Recharge, Cold Freshwater Habitat, Fish Migration, Preservation of Rare and Endangered Species, Fish Spawning, Warm Freshwater Habitat, Wildlife Habitat, Water Contact Recreation, Noncontact Water Recreation

Source: San Francisco Bay Regional Water Quality Control Board, Basin Plan 2019

Groundwater

As designated in the Basin Plan, existing beneficial uses of groundwater in the Livermore Valley Groundwater Basin include municipal and domestic water supply, industrial process supply, industrial service supply, and agricultural water supply. The four main constituents of concern in groundwater in the main basin, where the majority of the project alignment is located, include total dissolved solids, nitrate, boron, and chromium. Additionally, perfluoroalkyl and polyfluoroalkyl substances (PFAS) were added to the list of analytes for all municipal supply wells and select monitoring wells in the 2019 water year (Zone 7 Water Agency 2021).

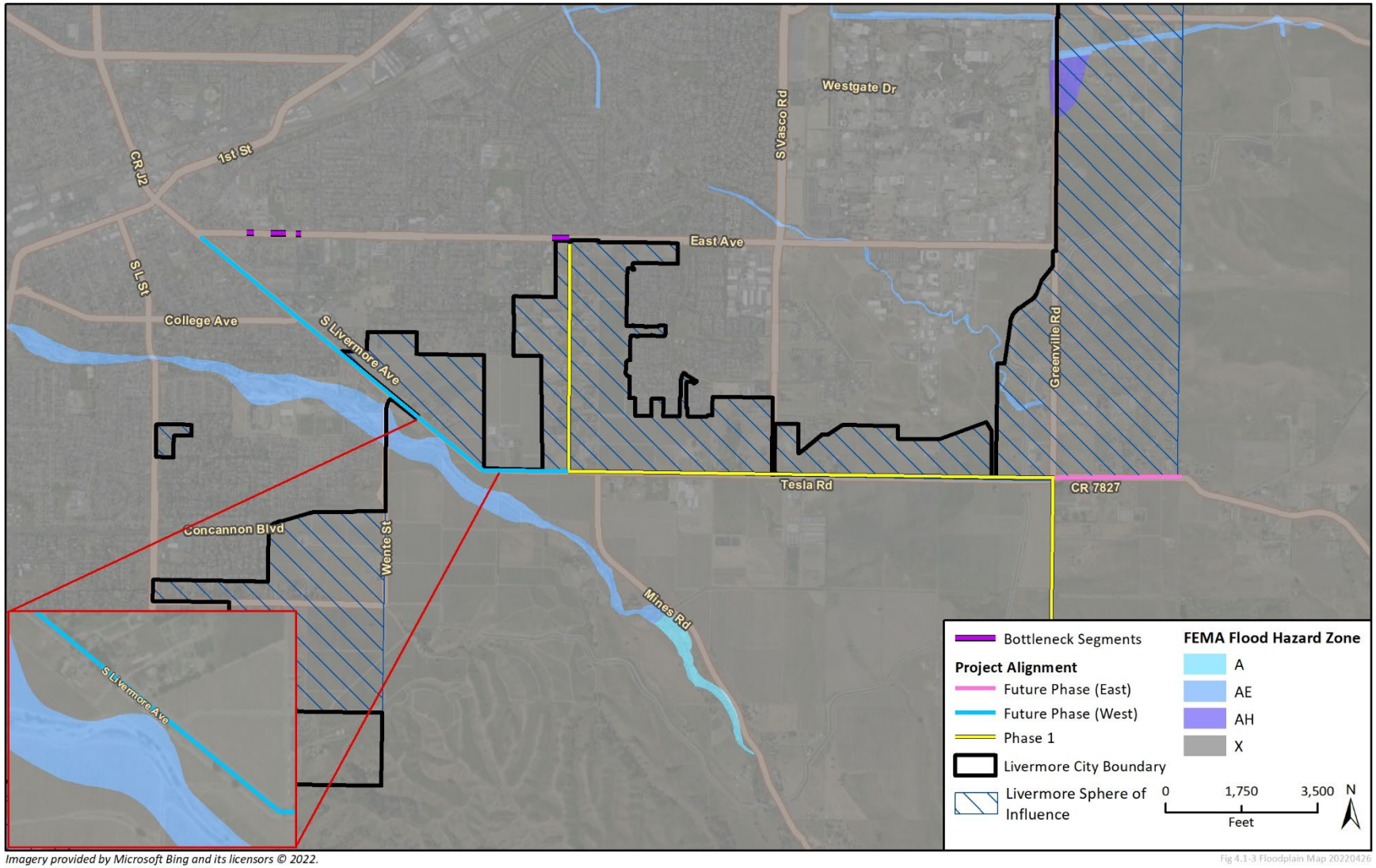
d. Flooding

Flooding during storm events occurs when the amount of rainfall exceeds the infiltration capacity of the surrounding landscape or the conveyance capacity of the stormwater drainage system. Most flooding within the City of Livermore is caused by heavy rainfall and subsequent runoff volumes that cannot be adequately conveyed by the existing storm drainage system combined with surface water bodies (City of Livermore 2015). The Federal Emergency Management Agency (FEMA) delineates regional flooding hazards on Flood Insurance Rate Maps (FIRM) as part of the National Flood Insurance Program. Higher flood risk zones are called Special Flood Hazard Areas; these areas have a 1 percent chance or greater of flooding in any given year (also called the 100-year floodplain). Areas that have a 0.2 percent chance of flooding in any given year are called the 500-year floodplain. As shown in Figure 4.1-3, the project alignment is located outside areas designated by FEMA as being outside of FEMA high flood risk zones. The alignment is located within FEMA Flood Zone X, an area of minimal flood hazard. However, an existing Flood Hazard Zone associated with low-lying areas near Arroyo Mocho is located directly adjacent to South Livermore Avenue, south and southwest of the project alignment near South Livermore Avenue's intersection with Concannon Boulevard (FEMA 2021).

Inundation can sometimes occur as a result of tsunamis and seiches. A tsunami is a wave generated by the sudden displacement of a large amount of water. Tsunamis can be triggered by earthquakes, volcanic eruptions, or similar events that occur under the water or the shore. Impacts of tsunamis can be both immediate and long-term. The project alignment is located approximately 40 miles east of the Pacific Ocean. According to the State of California Tsunami Inundation Map for Emergency Planning, the City of Livermore is not located within a tsunami inundation area (California Department of Conservation 2021). Seiches are a related hazard that can occur when a sudden displacement event or very strong winds happen in an enclosed or semi-enclosed body of water such as a lake or reservoir.

According to the City of Livermore General Plan Public Safety Element, portions of the city are located within the dam failure inundation hazard areas for Lake Del Valle and Patterson Reservoir. Patterson Dam is located east of Greenville Road and north of Patterson Pass Road, approximately 2.25 miles northeast of the project alignment, while the Del Valle Dam is located at the northern end of Lake Del Valle south of Tesla Road and west of Mines Road, approximately 4 miles south of the project alignment. The depth of inundation resulting from dam failure would vary from near zero at topographic highs or uplands to many feet in low-lying areas and in creek channels. However, the project alignment falls outside of the inundation hazard areas.

Figure 4.1-3 FEMA Flood Zones



Imagery provided by Microsoft Bing and its licensors © 2022.
Additional data provided by FEMA, 2021.

Fig 4.1-3 Floodplain Map 20220426

4.1.2 Regulatory Setting

a. Federal

Clean Water Act

The Federal Clean Water Act (CWA), enacted by Congress in 1972 and amended several times since, is the primary federal law regulating water quality in the United States and forms the basis for several State and local laws throughout the country. The Clean Water Act established the basic structure for regulating discharges of pollutants into the waters of the United States. The Clean Water Act gave the United States Environmental Protection Agency (USEPA) the authority to implement federal pollution control programs, such as setting water quality standards for contaminants in surface water, establishing wastewater and effluent discharge limits for various industry contaminants in surface water, establishing wastewater and effluent discharge limits for various industry categories, and imposing requirements for controlling nonpoint-source pollution. At the federal level, the Clean Water Act is administered by the USEPA and United States Army Corps of Engineers (USACE). At the state and regional levels in California, the Clean Water Act is enforced by the State Water Resources Control Board (SWRCB) and the nine RWQCBs.

Section 303(d): List of Impaired Water Bodies

Section 303(d) of the Clean Water Act requires states to identify water bodies that do not meet water quality objectives and are not supporting their beneficial uses. Each state must submit an updated biennial list identifying which water bodies are impaired, called the 303(d) list, to the USEPA. In addition to identifying the water bodies that are not supporting beneficial uses, the list also identifies the pollutant or stressor causing impairment and establishes a priority for developing a control plan to address the impairment. If a water body is designated as "impaired," then a Total Maximum Daily Load (TMDL) is developed and identified for the affected water body. A TMDL establishes the maximum daily amount of a pollutant from point, nonpoint, and natural sources that a water body can receive without exceeding applicable water quality standards (often with a "factor of safety" included, which limits the total load of pollutants to a level well below that which could cause the standard to be exceeded). Once established, the TMDL is allocated among current and future dischargers into the water body.

Arroyo Mocho is listed on the 303(d) list as impaired for diazinon, a pesticide, and for eutrophication (SWRCB 2018). Arroyo Las Positas is listed on the 303(d) list as impaired for diazinon and for water temperature (SWRCB 2018). The potential source of diazinon is urban runoff and storm sewers, while the potential source of eutrophication and water temperature impairment is unknown (SWRCB 2018). A TMDL was approved by the USEPA for both Arroyo Mocho and Arroyo Las Positas for diazinon impairment on May 16, 2017, with an expected TMDL completion date of 2021 (SWRCB 2018).

Section 401

Under Section 401 of the Clean Water Act, the State RWQCBs have regulatory authority over actions in waters of the United States and the State of California through the issuance of water quality certifications, which are issued in conjunction with any federal permit (e.g., permits issued by the USACE under Section 404 of the Clean Water Act, described below). Section 401 of the Clean Water Act provides the SWRCB and the RWQCBs with the regulatory authority to waive, certify, or deny any proposed activity that could result in a discharge to surface waters of the State. To waive or

certify an activity, these agencies must find that the proposed discharge would comply with State water quality standards, including those protecting beneficial uses and water quality. If these agencies deny the proposed activity, the federal permit cannot be issued. This water quality certification is generally required for projects involving the discharge of dredge or fill material to wetlands or other bodies. Jurisdictional streambeds and associated riparian habitat are also regulated by the California Department of Fish and Wildlife under Section 1602 of the California Fish and Game Code.

Section 402: National Pollutant Discharge Elimination System

In 1987, amendments to the CWA added Section 402, which established a framework to protect water quality by regulating industrial, municipal, and construction-related sources of pollutant discharges to waters. In California, the NPDES program is administered by the SWRCB through the RWQCBs, and requires municipalities to obtain permits outlining programs and activities to control wastewater and stormwater pollution.

The CWA prohibits discharges of stormwater from construction projects unless the discharge is in compliance with an NPDES permit. The SWRCB, which is the permitting authority in California, adopted an NPDES *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit) (Order 2009-0009, as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). Compliance with the Construction General Permit is required for projects that result in more than one acre of ground disturbance, including through clearing, grading, grubbing, excavating, stockpiling, and removing or replacing existing facilities. The Construction General Permit requires the landowner and/or contractor to file permit registration documents prior to commencing construction and pay a fee annually throughout the duration of construction. These documents include a notice of intent, risk assessment, site map, stormwater pollution prevention plan (SWPPP), and signed certification statement. The Construction General Permit specifies minimum BMP requirements for stormwater control based on the risk level of the site. The SWPPP must include measures to ensure the following:

- All pollutants and their sources are controlled;
- Non-stormwater discharges are identified and eliminated, controlled, or treated;
- Site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges; and
- BMPs installed to reduce or eliminate pollutants post-construction are completed and maintained.

Section 404

Under Section 404 of the Clean Water Act, proposed discharges of dredged or fill material into waters of the United States require USACE authorization. Waters of the United States generally include tidal waters, lakes, ponds, rivers, streams (including intermittent streams), and wetlands (with the exception of isolated wetlands). The USACE identifies wetlands using a multi-parameter approach, which requires positive wetland indicators in three distinct environmental categories: hydrology, soils, and vegetation. According to the USACE (1987) Wetlands Delineation Manual, except in certain situations, all three parameters must be satisfied for an area to be considered a jurisdictional wetland. When an application for a Section 404 permit is made, the applicant must show it has:

- Taken steps to avoid impacts to wetlands or waters of the U.S. where practicable;
- Minimized unavoidable impacts on waters of the U.S. and wetlands; and
- Provided mitigation for unavoidable impacts.

National Flood Insurance Program

The National Flood Insurance Program is a program administered by the Federal Emergency Management Agency (FEMA) to provide subsidized flood insurance for property owners in communities. The National Flood Insurance Program established regulations that limit development in flood-prone areas. The boundaries of flood-prone areas are delineated on FEMA's Flood Insurance Rates Maps, which provide flood information and identify the flood hazard in the community. In certain high-risk areas, federally regulated or insured lenders require property owners to have flood insurance before issuing a mortgage.

b. State

Porter-Cologne Water Quality Control Act of 1970

The federal Clean Water Act places the primary responsibility for the control of water pollution and planning the development and use of water resources with the states, although it does establish certain guidelines for the states to follow in developing their programs. California's primary statute governing water quality and water pollution is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code). The Porter-Cologne Act grants the SWRCB and RWQCBs the authority and responsibility to adopt plans and policies, to regulate discharges to surface water and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, oil, or petroleum product. Each RWQCB must formulate and adopt a water quality control plan for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that an RWQCB may include in its region a regional plan with water discharge prohibitions applicable to particular conditions, areas, or types of waste. The project alignment is within the jurisdictional boundaries of the San Francisco Bay RWQCB (Region 2), which has adopted a Water Quality Control Plan, discussed below.

California Toxics Rule

Because California had not established a complete list of acceptable water quality criteria for toxic pollutants, EPA Region IX established numeric water quality criteria for toxic constituents in the form of the California Toxics Rule (CTR). The CTR provides water quality criteria for certain potentially toxic compounds for inland surface waters, enclosed bays, estuaries, and waters designated for human health or aquatic life uses. The CTR is often used by the RWQCBs when establishing water quality objectives and TMDLs. Although the CTR criteria do not apply directly to discharges of stormwater runoff, they are utilized as benchmarks for toxics in urban runoff. The CTR is used as a benchmark to evaluate the potential ecological impacts of stormwater runoff to receiving waters. The CTR establishes acute and chronic surface water quality standards for certain water bodies. Acute criteria provide benchmarks for the highest permissible concentration below which aquatic life can be exposed for short periods of time without deleterious effects. Chronic criteria provide benchmarks for an extended period of time (i.e., four days or more) without

deleterious effects. The acute CTR criteria have a shorter relevant averaging period (less than four days) and provide a more appropriate benchmark for comparison for stormwater flows.

CTR criteria apply to the receiving water body and are calculated based on the probable hardness values of the receiving waters. At higher hardness values for receiving waters, certain constituents (including copper, lead, and zinc) are more likely to be complexed (bound with) components in the water column. This in turn reduces the bioavailability and resulting potential toxicity of these metals.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) of 2014 is a comprehensive three-bill package that provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for State intervention, if necessary, to protect the resource. The plan is intended to ensure a reliable groundwater supply for California for years to come. The SGMA requires governments and water agencies of high- and medium-priority basins to halt overdrafts of groundwater basins. The SGMA requires the formation of local groundwater sustainability agencies that are required to adopt groundwater sustainability plans to manage the sustainability of the groundwater basins.

The project alignment falls within the jurisdiction of the Zone 7 Water Agency, which has been designated as the exclusive Groundwater Sustainability Agency within its service area. Zone 7 adopted its first Groundwater Management Plan in 2005, prior to the enactment of SGMA, to document ongoing policies and programs for managing groundwater to support existing and beneficial uses in Livermore Valley. Zone 7 adopted an Alternative Groundwater Sustainability Plan for the Livermore Valley Groundwater Basin in December 2016, and prepares an annual report of the groundwater basin that summarizes the basin conditions over the standard water year from October to September.

c. Regional and Local

Municipal Regional Stormwater Permit

The Municipal Stormwater Permitting Program regulates stormwater discharges from Municipal Separate Storm Sewer Systems (MS4s). The NPDES MS4 permits in California are generally issued in two phases by the SWRCB and RWQCBs. Phase I MS4 permits are issued by the RWQCBs to medium (i.e., serving between 100,000 and 250,000 people) and large (i.e., serving more than 250,000 people) municipalities. Most of these permits are issued to a group of co-permittees encompassing an entire metropolitan area. Phase II MS4 permits are issued by the SWRCB and is applicable to smaller municipalities (i.e., populations of less than 100,000 people) and nontraditional small MS4s (e.g., military bases, public campuses, and prison and hospital complexes).

On November 19, 2015, the San Francisco Bay RWQCB re-issued county-wide Phase 1 municipal stormwater permits as one Municipal Regional Stormwater NPDES Permit to regulate stormwater discharges from municipalities and local agencies in Alameda, Contra Costa, San Mateo, and Santa Clara counties, and the cities of Fairfield, Suisun City, and Vallejo. The Municipal Regional Stormwater NPDES Permit (California Regional Water Quality Control Board San Francisco Bay Region Municipal Regional Stormwater NPDES Permit, Order No. R2-2015-0049, NPDES No. CAS612008) became effective on November 19, 2015 and covers Phase I permittees regionwide, including the City of Livermore and unincorporated areas of Alameda County. The Phase I, Phase II, and Regional MS4 Permits require the permittees to develop a stormwater management program

and individual dischargers to develop and implement Stormwater Quality Management Plans (SWMP) to manage discharges to municipal storm drain systems.

San Francisco Bay Water Quality Control Plan

The San Francisco Bay RWQCB has adopted a Water Quality Control Plan (Basin Plan) for their region of responsibility that delineates water resource area boundaries based on hydrological features. For the purposes of achieving and maintaining water quality protection, specific beneficial uses have been identified for each of the surface waters and groundwater management zones described in the Basin Plan. Once beneficial uses are designated, appropriate water quality objectives are established, and programs that maintain or enhance water quality are implemented to ensure the protection of beneficial uses.

The Basin Plan also established implementation programs to achieve water quality objectives to protect beneficial uses and require monitoring to evaluate the effectiveness of the programs. These objectives must comply with the State antidegradation policy (SWRCB Resolution No. 68-16), which is designed to maintain high-quality waters while allowing some flexibility if beneficial uses are not unreasonably affected.

Zone 7 Water Agency Alternative Groundwater Sustainability Plan

The Zone 7 Alternative Groundwater Sustainability Plan (GSP) fulfils the requirement for a Groundwater Sustainability Agency to prepare either a GSP or an Alternative Plan that covers the entire groundwater basin. The Zone 7 Alternative GSP demonstrates that the basin has been operating within a sustainable yield for at least 10 years. A sustainable yield is defined by SGMA as the maximum quantity of water, calculated over a base period representative of long-term conditions in the basin, that can be withdrawn annually from a groundwater supply without causing an undesirable result (Zone 7 Water Agency 2016). The purpose of the Alternative GSP is to characterize current and historical groundwater conditions in the basin and to detail groundwater use, groundwater occurrence and flow, groundwater levels, groundwater in storage, groundwater quality, potential subsidence, and surface water-groundwater interactions in order to evaluate the sustainability of Zone 7's groundwater management criteria. The Alternative GSP also develops a current water budget while identifying the projected water budget and future groundwater management.

Overall, Zone 7's ongoing sustainable management goal is to continue to operate the Livermore Valley Groundwater Basin within its sustainable yield and to manage the groundwater resources to prevent significant and unreasonable lowering of groundwater levels, reduction in basin storage, degradation of groundwater quality, inelastic land subsidence, or depletion of surface water supplies that may adversely impact beneficial uses (Zone 7 Water Agency 2016). To achieve this sustainable management goal, the Alternative GSP adopted a series of policies, ordinances, and basin management objectives. Primary objectives outlined in the Alternative GSP include, but are not limited to, maintaining the balance between the combination of natural and artificial recharge and withdrawal; preventing overdraft that would otherwise occur from too much pumping; protecting and enhancing the quality of the groundwater; minimizing threats of groundwater pollution through groundwater protection; and protecting the storage capacity of the aquifer.

Alameda Clean Water Program

The Alameda Countywide Clean Water Program works to facilitate local compliance with the Federal Clean Water Act by reducing or eliminating the pollution of receiving waters. The Alameda County Public Works Clean Water Program works closely with the Countywide Clean Water Program to prevent water pollution from urban runoff in unincorporated areas of Alameda County. The program includes public outreach, inspection of industrial areas, assessment and monitoring of watersheds, and monitoring of construction sites. Overall, the Clean Water Program ensures that Alameda County meets the requirements of its Municipal Regional Stormwater Permit with the San Francisco Bay RWQCB.

Alameda County General Plan

The Alameda County General Plan was adopted by the County Board of Supervisors in on November 23, 1976 and amended in May 1994. The General Plan acts as a long-range policy document to guide physical, economic, and environmental growth in Alameda County. The Plan expresses the County's vision for the future and is the roadmap for achieving the community's desired quality of life. The Plan also includes an assessment of current and future needs, and the resources needed to implement the goals and policies established within (County of Alameda 2022). The General Plan Conservation Element and Safety Element contain the following goals and objectives relevant to the proposed project (County of Alameda 2022):

Conservation Element Goal: To insure and maintain a continuing supply of high water quality for the citizens of Alameda County.

Objective 1: To insure sufficient water supplies of high quality for all beneficial uses.

Objective 2: To conserve ground water resources and prevent overdraft of existing ground water supplies.

Objective 3: To define areas of periodic flooding and reduce loss through the application of sound land use planning.

Objective 4: To reduce man-caused stream and ground water pollution and general resource degeneration through cumulative impacts on surface and ground water systems.

Objective 5: To maintain all water resources in their highest quality.

Objective 6: To educate government, business and citizens to assist in the conservation of water and energy and to minimize pollution.

Objective 7: Through sound design of drainage systems throughout the County and by regulation of land use, erosion or soil caused by water could be controlled.

Objective 8: To achieve coordination of state, regional, and local water management agencies and policies throughout the County.

Safety Element Goal 3: To reduce hazards related to flooding and inundation.

Policy P1: Within flood hazard areas, all new construction of buildings, structures, and portions of buildings and structures, including substantial improvement and restoration of substantial damage to buildings and structures, shall be designed and constructed to resist the effects of flood hazards and flood loads.

Policy P2: Surface runoff from new development shall be controlled by on-site measures including, but not limited to structural controls and restrictions regarding changes in topography, removal of vegetation, creation of impervious surfaces, and periods of construction such that the need for off-site flood and drainage control improvements is minimized and such that runoff from development will not result in downstream flood hazards.

Policy P10: The County shall work with the Alameda County Flood Control and Water Conservation District and Zone 7 Water Agency to provide for development of adequate storm drainage and flood control systems to serve existing and future development.

Policy P13: The County shall regulate new development on a case-by-case basis to ensure that project storm drainage facilities shall be designed so that peak rate flow of storm water from new development will not exceed the rate of runoff from the site in its undeveloped state.

South Livermore Valley Area Plan

The County of Alameda adopted the South Livermore Valley Area Plan (SLVAP) in November 1992 to create a planned area that preserves, promotes, and enhances viticulture and other cultivated agriculture. The SLVAP is a policy document that establishes criteria for future development for approximately 15,500 acres of undeveloped land in unincorporated areas south and east of the City of Livermore. SLVAP policies relevant to the proposed project include the following (County of Alameda 2003):

Agricultural Preservation and Enhancement Policy 9: Encourage the development of additional sources of irrigation water for vineyards and other cultivated agriculture by investigating wastewater reclamation and development of other supply and delivery resources. Encourage Zone 7 to consider developing a pump monitoring and cost allocation system to cover the cost of new water in the event that additional supplies are needed.

Land Use Vineyard Area Policy 2A: The applicant must show, to the satisfaction of the County, that adequate water supplies are available to the proposed parcels for both domestic and irrigation needs, and that all proposed homesites can be served by individual septic systems. The County shall consult with the appropriate water purveyor.

Land Use Vineyard Area Policy 2G: The applicant must meet the following site development review standards: (i) Parcels that include, or are adjacent to, arroyos shall maintain a minimum 100 foot uncultivated and undeveloped buffer, as measured from top of bank.

Annexation and Urban Development Policy 2: Require any urban development proposal within the Vineyard Area to meet the following criteria, at a minimum:

A. All necessary public utilities and services are available.
B. The project will contribute funds for a recycled water treatment system. Contributions should equal or exceed the cost of providing recycled water equal in volume to 120% of anticipated water use of the development,

East County Area Plan

The East County Area Plan was adopted by the County Board of Supervisors on May 5, 1994, and amended in 2000 with intent to provide a clear statement concerning future development and resource conservation in East County. The East County encompasses 418 square miles of eastern Alameda County including the cities of Dublin, Livermore, Pleasanton, a portion of Hayward, and surrounding unincorporated areas. The policies and implementation programs discussed within the East County Area Plan are similar to the components within the Alameda County General Plan. The policies and implementation programs in the East County Area Plan relevant to meeting water quality goals are listed below (County of Alameda 2000).

Policy 306: The County shall protect surface and groundwater resources by:

- Preserving areas with prime percolation capabilities and minimizing placement of potential sources of pollution in such areas;
- Minimizing sedimentation and erosion through control of grading, quarrying, cutting of trees, removal of vegetation, placement of roads and bridges, use of off-road vehicles, and animal-related disturbance of the soil;
- Not allowing the development of septic systems, automobile dismantlers, waste disposal facilities, industries utilizing toxic chemicals, and other potentially polluting substances in creekside, reservoir, or high groundwater table areas when polluting substances could come in contact with flood waters, permanently or seasonally high groundwaters, flowing stream or creek waters, or reservoir waters; and
- Avoiding establishment of excessive concentrations of septic systems over large land areas.

- **Implementation Program 108**. The County shall implement all federal, state and locally imposed statutes, regulations, and orders that apply to stormwater quality. Examples of these include, but are not limited to:
  - National Pollutant Discharge Elimination System (NPDES) stormwater permit issued by the California Regional Water Quality Control Board (RWQCB) to the Alameda County Urban Runoff Clean Water Program and amendments thereto;
  - State of California NPDES General Permit for Stormwater Discharges (General Industrial Permit, General Construction Permit) and amendments thereto;
  - Water Quality Control Plan, San Francisco Bay Basin Region (Basin Plan) and amendments thereto; and
  - Letters issued by the RWQCB under the California Porter-Cologne Water Quality Act.
- **Implementation Program 109.** The County shall endeavor to minimize herbicide use by public agencies by reviewing existing use and applying integrated pest management principles, such as mowing and mulching, in addition to eliminating or scaling back the need for vegetation control in the design phase of a project.
- **Implementation Program 110.** The County shall conform with Zone 7 Wastewater Management Plan and the Regional Water Quality Control Board's San Francisco Bay Basin Plan.

Alameda County Codes and Ordinances

Section 13.08.070 of the Alameda County Codes and Ordinances prohibits the discharge of non-stormwater discharges to the waters of the United States or to the county storm drain system

unless it is regulated under an NPDES permit issued to the discharger and administered by the state under the authority of the USEPA. Similarly, Section 13.08.080 prohibits any discharge that would result in or contribute to a violation of the county NPDES permit. Section 13.08.100 requires any person engaged in activities that could result in pollutants entering the waters of the United States or the county storm drain system to undertake all practicable measures to reduce or eliminate such pollutants. In addition, Section 13.08.100 requires each discharger identified in a Municipal NPDES permit relating to stormwater discharges to comply with and undertake all activities required by the NPDES permit, including compliance with Best Management Practices (BMPs). Section 13.12.090 prohibits any person to discharge or connect to any pipe or channel to a watercourse.

Section 15.36.060 prohibits grading to be undertaken in such a manner that quantities of dirt, soil, rock, debris, or other material substantially in excess of natural levels are washed, eroded, or otherwise discharged into a watercourse, a flood control facility, or other drainage system by the forces of nature, or could be so washed, eroded, or discharged onto, within, or from the site. Similarly, Section 15.36.070 prohibits grading that obstructs, impedes, or interferes with the natural flow of stormwater in such manner as to cause flooding where it would not otherwise occur, aggravate any existing flooding condition, cause accelerated erosion, or result in an illicit discharge, except where said grading is in accordance with all applicable laws, ordinances, and regulations of the county, including but not limited to the requirement to obtain a permit or permits where so specified. Section 15.36.600 outlines the requirements that apply to erosion and sediment controls from grading operations, and Section 15.36.652 prohibits grading work within any area designated as a floodplain.

City of Livermore General Plan 2003-2025

The City of Livermore General Plan Infrastructure and Public Services Element contains goals, policies, and actions that support the protection and availability of water resources within the City. The General Plan Open Space and Conservation Element contains goals, policies, and actions that ensure the comprehensive and long-range preservation and management of open space land for the protection of natural resources. Finally, the General Plan Public Safety Element contains goals, policies, and actions that are designed to protect the community as much as possible from seismic, flood, geologic and wildfire hazards. The following goals, objectives, and policies from the City's General Plan apply to the proposed project (City of Livermore 2015):

Goal INF-1: Provide sufficient water supplies and facilities to serve the City in the most efficient and financially sound manner, while maintaining the highest standards required to enhance the quality of life for existing and future residents.

> **Policy INF-1.1 P5:** Development will not result in a reduction of water quality below those standards set forth in State and federal laws and regulations.

Goal INF-3: Collect, store, and dispose of stormwater in ways that are safe, sanitary, environmentally acceptable, and financially sound while maintaining the highest standards required to enhance the quality of life for existing and future residents.

> **Policy INF-3.1 P1:** Design local storm drainage improvements to carry appropriate design-year flows resulting from build out of the General Plan.

Objective INF-3.2: Encourage coordination between land use planning, site design and stormwater pollution control.

Policy INF-3.2 P3: The City shall take all necessary measures to regulate runoff from urban uses to protect the quality of surface and ground-waters and other resources from detrimental conditions.

Objective INF-3.3: Maintain creeks and arroyos in as natural a state as possible, while maintaining the health and safety of residents, providing flood control, preserving habitat and providing recreational use.

Policy INF-3.3 P5: New development shall be required to incorporate appropriate measures to minimize the impacts of stormwater runoff to local creeks and channels.

Goal OSC-2: Conserve Livermore's waterways, tributaries and associated riparian habitats.

Objective OSC-2.1: Continue efforts to ensure that development does not harm the quality or quantity of Livermore's surface or ground water.

Policy OSC-2.1 P1: Require the implementation of BMPs to minimize erosion, sedimentation, and water quality degradation resulting from the construction of new impervious surfaces.

Policy OSC-2.1 P2: The City shall take all necessary measures to regulate runoff from urban uses to protect the quality of surface and ground water.

Goal PS-2: Reduce hazards related to flooding or inundation.

Objective PS-2.1: Minimize flood risks to development.

Policy PS-2.1 P2: When feasible, arroyos and creeks shall be preserved in their natural state, and shall not be channelized or otherwise altered. Floodways should remain undeveloped and be allowed to function as natural flood protection features where flood waters are temporarily stored and conveyed during intense storms.

City of Livermore Municipal Code

Section 13.25.100 of the Livermore Municipal Code (LMC) requires grading of a project site be designed to minimize soil erosion, runoff, and water waste. Section 13.32.050 prohibits unauthorized discharges to the City's sanitary sewer system. Section 13.45.030 prohibits discharge of non-stormwater discharges to the city storm sewer system, and Section 13.45.040 prohibits discharge that would result in or contribute to a violation of the most currently-issued and effective NPDES permit. Section 13.45.090 requires construction contractors to provide filter materials at catch basins to retain debris and dirt flowing into the City's storm sewer system. Section 13.45.110 requires use of best management practices for any activity, operation, or facility which may cause or contribute to stormwater pollution or contamination. Section 16.08.070 prohibits any person from degrading the water quality of flowing water. Chapter 16.12 of the LMC regulates development within flood hazard zones, including the control of filling, grading, dredging and other development which may increase erosion or flood damage.

South Livermore Valley Specific Plan

The South Livermore Valley Specific Plan (SLVSP) was adopted by the City of Livermore in November 1997 and amended in February 2004. Subareas 1 and 2 of the SLVSP are located adjacent to the project alignment. The following policies from the SLVSP apply to the proposed project and/or development potential of parcels served by the proposed project (City of Livermore 1997):

Policy 8-19: A detailed drainage design plan will be prepared for each development area and submitted as part of each tentative subdivision map application. The drainage plan must document pre- and post-development flows in the critical channel reaches within the project watershed and the available flow capacity in any off-site drainage systems proposed for discharge from planning area development.

Policy 8-20: Peak period discharge rates shall not increase off-site flood hazards or exceed the design capacity of any off-site drainage facility. Before designing and building any drainage improvements, sponsors of individual projects should consult the City of Livermore's Master Drainage Plan and the supplemental Drainage Facilities Planning Guidelines. All improvements should adhere to those City requirements and guidelines. In addition, hydraulic structures (such as storm drains and culverts) should be over-sized to accommodate sediment and debris conveyed in stormwater runoff.

Policy 8-21. Consistent with the rural image of the planning area, encourage the use of permeable surface drainage and runoff detention systems both inside and outside the development areas. The use of grass-lined swales and detention basins is encouraged wherever feasible as a means of: 1) minimizing the increase in the rate and volume of stormwater runoff associated with new urban development, 2) maximizing the potential for groundwater recharge, and 3) filtering the urban pollutants that get carried into the major drainage channels.

Policy 8-22. Require proposed development to provide drainage facilities which minimize impact upon existing streams and arroyos.

Policy 8-23: For all agricultural mitigation land required by Specific Plan development, require preparation of an agricultural sediment management plan for each parcel of grassland converted to vineyard cultivation within the proposed City limits. Such plans should describe appropriate erosion control measures and schedules to operate and maintain related facilities (such as detention / sediment basins). Each plan should reflect consultation with and input of the Natural Resource Conservation Service (NRCS) in Livermore and should implement NRCS recommendations. Sufficient optional measures are available to enable each property owner flexibility to satisfy the requirements for erosion and sedimentation control for the particular parcel without significant loss of arable land.

Policy 8-24: Prepare and implement a comprehensive Stormwater Pollution Prevention Plan (SWPPP) for each residential development project and / or commercial facility built in the SLVSPA. The SWPPP must accompany any application to the Regional Water Quality Control Board for General Construction Activity Stormwater Permit (required for any development which would disturb more than five acres of land) The SWPPP should be submitted to the City of Livermore Engineering Department for review and approval before construction begins. No grading should occur during the winter season, and, therefore, grading activities should be restricted to the period between April 1 and October 15.

Policy 8-25: Install adequate energy dissipation at all culvert outlets to deter local channel incision and erosion.

Policy 8-26: For all earthen (defined) channel reaches within new or established drainageways, install geosynthetic stabilization or targeted natural stabilization to deter erosion and channel incision. Full lining of earthen channels with concrete or rock rip rap shall be prohibited in favor of vegetated channels. The vegetated channels can be

stabilized with occasional rock grade checks and / or biodegradable or geosynthetic elements (such as long-life erosion control blanket or geoweb).

4.1.3 Impact Analysis

a. Methodology and Significance Thresholds

This section identifies the potential environmental impacts from construction of the proposed project related to hydrology and water quality. Assessment of impacts is based on review of site information and conditions, pertinent analysis provided in the 1997 EIR, and an assessment of baseline conditions in the project vicinity including watersheds and surface waters, groundwater, and inundation areas, as described above under Section 4.1.1, *Setting*. Potential impacts to hydrology and water quality are evaluated based on the adherence to local, State, and federal standards and implementation of BMPs for control of surface runoff and reduction of pollutants in stormwater runoff.

The following thresholds of significance are based on *CEQA Guidelines* Appendix G. For the purposes of this Supplemental EIR, implementation of the proposed project may have a significant impact if it would:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface of ground water quality.
2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:
   (i) Result in substantial erosion or siltation on- or off-site;
   (ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
   (iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
   (iv) Impede or redirect flood flows.
4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

b. Prior Environmental Analysis

Chapter 4.3 (Hydrology, Drainage, and Water Quality) of the 1997 EIR analyzes the SLVSP's impacts related to water quality standards, groundwater supplies, impervious surfaces, and flooding. The 1997 EIR does not address the issues of conflicts or obstruction of implementation of a water quality control plan or sustainable groundwater management plan, as this was not yet included as a significance criterion used to analyze project impacts to hydrologic conditions under CEQA. The project would involve the construction of new sewer pipelines that were not analyzed in the 1997 EIR and could therefore result in new impacts related to hydrology and water quality. Therefore, all

the CEQA checklist items listed above under the *Methodology and Significance Thresholds* section are addressed in this analysis.

c. Project Impacts and Mitigation Measures

Threshold 1:	Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Impact HYD-1 CONSTRUCTION OF THE PROPOSED PROJECT COULD RESULT IN AN INCREASE IN POLLUTANTS IN STORMWATER AND WASTEWATER VIA RUNOFF DURING GRADING AND EXCAVATION ACTIVITIES IN THE VICINITY OF EXISTING SURFACE WATER RESOURCES AND STORM DRAIN INFRASTRUCTURE. COMPLIANCE WITH NPDES PERMIT REQUIREMENTS, LIVERMORE MUNICIPAL CODE REQUIREMENTS, ALAMEDA COUNTY CODES AND ORDINANCES, AND LIVERMORE GENERAL PLAN GOALS, OBJECTIVES, AND POLICIES WOULD PREVENT SUBSTANTIAL DISCHARGES OF POLLUTANTS VIA STORMWATER RUNOFF. SUCH COMPLIANCE WOULD MINIMIZE ADVERSE EFFECTS ON WATER QUALITY. IN ADDITION, THE DISUSE AND REMOVAL OF EXISTING RESIDENTIAL SEPTIC SYSTEMS WOULD RESULT IN AN OVERALL IMPROVEMENT IN GROUNDWATER QUALITY IN THE PROJECT VICINITY. THEREFORE, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Construction

Project construction would occur along existing paved roadways and would involve removal of the existing roadbed, grading and excavation, installation of the new sewer pipe, backfill of the trench, and repaving. Once an area is complete, the contractor would install final paving over the trench. Construction activities could result in temporary impacts to water quality due to runoff leaving active construction areas along the project alignment in the proximity of nearby water resources and storm drain infrastructure. Such nearby water resources include Arroyo Mocho, located approximately 265 feet southwest of the project alignment at its closest point to South Livermore Avenue, and Arroyo Seco, located approximately 150 feet east of the easternmost portion of the project alignment on Tesla Road. Arroyo Mocho flows generally parallel to the project alignment along South Livermore Avenue while Arroyo Seco crosses Greenville Avenue approximately 1,200 feet north of the project alignment and flows parallel to the project alignment as it nears Tesla Road. Such nearby storm drain infrastructure includes curb and gutter along East Avenue, South Livermore Avenue, and the portion of Tesla Road west of Mines Road, and catch basins on South Livermore Avenue, on Tesla Road at its intersection with Mines Road, and on East Avenue.

Excavation activities during construction have the potential to impact water quality through erosion and debris carried in runoff. Project construction would involve heavy equipment that could also result in an increase in fuel, oil, and lubricants in stormwater runoff due to leaks or accidental releases. These contaminant sources could degrade the water quality of receiving water bodies (i.e., the Arroyo Mocho located approximately 265 feet southwest of the project alignment on South Livermore Avenue, Arroyo Seco located approximately 150 feet east of the project alignment on Tesla Road, and local flood control channels and creeks that collect stormwater from catch basins and storm drains), potentially resulting in a violation of water quality standards. To minimize these impacts, the project would be required to maintain the following BMPs for site design and stormwater treatment, as outlined in the City of Livermore Stormwater Requirements Checklist for the MS4 Permit:

- Establish temporary erosion controls to stabilize all denuded areas until roadways are repaved;
- Use sediment controls or filtration to remove sediment when dewatering;

- Protect all storm drain inlets in vicinity of the project alignment using sediment controls such as berms, fiber rolls, or filters;
- Trap sediment on-site, using BMPs such as sediment basins or traps, earthen dikes or berms, silt fences, check dams, soil blankets or mats, covers for soil stock piles, etc.;
- Divert on-site runoff around exposed areas; divert off-site runoff around the project alignment (e.g., swales and dikes);
- Protect adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate;
- Avoid cleaning, fueling, or maintaining vehicles on-site, except in a designated area where washwater is contained and treated;
- Store, handle, and dispose of construction materials and wastes properly to prevent contact with stormwater; and/or
- Control and prevent the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, washwater or sediments, and non-stormwater discharges to storm drains and watercourses.

Further, in accordance with Chapter 13.45 of the LMC (Stormwater Management and Control Program) and Chapter 13.08 of the Alameda County Codes and Ordinances (Stormwater Management and Discharge Control), the proposed project would be required to undertake all practicable measures to reduce pollutants. The contractor would also be required to provide filter materials at the nearest catch basins, such as those located on South Livermore Avenue, on Tesla Road at its intersection with Mines Road, and on East Avenue, to retain any debris and dirt flowing into the City's stormwater system, which would ultimately empty into local flood control channels and creeks.

The proposed project would also be subject to the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit No. CAS612008, issued by Order No. R2-2015-0049 on November 19, 2015, to discharge stormwater runoff to storm drains and watercourses. Under the conditions of the permit, the project would be required to eliminate or reduce non-stormwater discharges to waters of the nation, develop and implement a SWPPP for construction activities, and perform inspections of the stormwater pollution prevention measures and control practices to ensure conformance with the SWPPP. Additionally, because the proposed project would disturb at least one acre of land, the project must provide stormwater treatment and would be required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ).

In addition to compliance with mandatory CWA requirements (NPDES Construction General Permit and MS4 General Permit), LMC requirements, and the San Francisco Bay RWQCB's post-construction requirements for stormwater management, implementation of the goals, policies, and actions outlined in the City's General Plan, described under Section 4.1.2, *Regulatory Setting*, above, would minimize erosion and siltation, prevent substantial discharges of contaminated stormwater to the municipal storm drain system or surface waters, and reduce the potential for violations of water quality standards or waste discharge requirements.

Operation

Impervious surfaces can cause stormwater runoff to carry a variety of pollutants, such oil, grease, metals, sediment, and pesticide residues from roadways into adjacent waterways via the storm

drain system. After completion, the proposed project would maintain the same area of impervious surfaces along the alignment compared to existing conditions, as no buildings or expansion of paved areas would be constructed. In addition, the project would not induce unanticipated growth in the City or the surrounding area because it would serve development potential consistent with the City's General Plan and SLVSP. As such, the proposed project would not contribute to an unanticipated increase in impervious surfaces within its vicinity.

Following construction, the project would not modify stormwater flow or introduce additional urban pollutants to the stormwater system through runoff. Since the proposed project would not introduce new impervious surfaces and no substantial change to existing roadway operations would result from the project, the project would not result in operational impacts to water quality. However, project operation would allow residences and existing wineries to connect to the City's wastewater system, and the existing septic systems at these properties would be abandoned or removed. As a result, groundwater quality in the South Livermore Valley would be improved due to reduced reliance on septic systems.

The 1997 EIR concluded that the development potential of the SLVSP would result in increased stormwater runoff, resulting in increased potential for pollution to be conveyed in runoff; however, potential impacts would be reduced by SLVSP Policies 8-21 through 8-26 because they would require the use of permeable surfaces and detention basins to maximize groundwater recharge and minimize impacts on local surface waters; and erosion control measures in agricultural land, implementation of SWPPPs, and channel stabilization to control stormwater quality.

Since the project would not result in an increase in the development potential of sites within the SLVSP and General Plan area, impacts related to water quality would not be more severe than those analyzed in the 1997 EIR. Therefore, the direct impact of the proposed project on water quality would be less than significant, and impacts from the development potential of the General Plan and SLVSP would remain less than significant. Pursuant to *CEQA Guidelines* Sections 15162(a)(3) and 15163(a), because the proposed project would not result in a significant effect that is substantially more severe than determined in the 1997 EIR, no additional mitigation measures would be required.

Conclusion

Overall, compliance to the applicable laws, regulations, and policies discussed above, adherence to identified BMPs, and implementation of relevant SWPPP requirements would reduce the risk of water quality degradation from pollutants related to construction activities in the vicinity of the proposed project. In addition, operation of the proposed project would allow residences and wineries to connect to the City's wastewater system, which would result in an overall improvement in groundwater quality in the South Livermore Valley. Because violations of water quality standards would be minimized and groundwater quality would be improved, impacts to water quality related to the proposed project would be less than significant.

Mitigation Measures

None required.

Significance After Mitigation

Less than significant without mitigation.

Threshold 2:	Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Impact HYD-2 THE PROPOSED PROJECT WOULD NOT RESULT IN A SUBSTANTIAL INCREASE IN DEMAND FOR GROUNDWATER SUPPLIES, NOR WOULD IT DIRECTLY INTERFERE WITH THE GROUNDWATER TABLE OR ITS RECHARGE. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The proposed project would not induce unanticipated growth in the City or surrounding area because it would serve existing development potential consistent with the City's General Plan and SLVSP. Project construction would require minimal amounts of water for dust suppression, in order to comply with Bay Area Air Quality Management District Regulations regarding dust suppression during construction activities. Project construction water use would also comply with California Green Building Standards Code water use efficiency requirements (additional details provided in Appendix IS: Environmental Checklist Section 3, *Air Quality*). Facilitation of adjacent development potential would be consistent with the City and County General Plans, and SLVSP, and operation of the proposed project would not result in an unanticipated demand for groundwater as a result of adjacent development potential. Therefore, no substantial increase in demand on groundwater supplies would occur.

The proposed project would maintain the same area of impervious surfaces along the alignment compared to existing conditions, as no buildings or expanded paved areas would be constructed and the project would not induce unanticipated growth in the City or the surrounding area. The existing drainage system would not be modified by the project, and stormwater would continue to runoff from the repaved roadway into the existing stormwater drainage system. Because the project would not result in an increase in impervious surfaces, groundwater recharge would continue as it does under existing conditions. Impacts related to depletion of groundwater supplies and groundwater recharge would be less than significant.

Mitigation Measures

None required.

Significance After Mitigation

Less than significant without mitigation.

Threshold 3:	Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: (i) Result in substantial erosion or siltation on- or off-site; (ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; (iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; and/or (iv) Impede or redirect flood flows**?**

Impact HYD-3 THE PROPOSED PROJECT WOULD NOT ALTER THE EXISTING DRAINAGE PATTERN OF THE PROJECT ALIGNMENT, ALTER THE COURSE OF A STREAM OR RIVER, OR ADD NEW IMPERVIOUS SURFACES. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Construction activities would involve site preparation, excavation and grading, paving, and other earth-disturbing activities that could temporarily alter existing drainage patterns. However, compliance with the NPDES Construction General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ) and LMC Chapter 13.45 would reduce the risk of short-term erosion and increased runoff resulting from drainage alterations during construction. Additionally, the proposed project would maintain the same area of impervious surfaces and would maintain the existing drainage pattern along the project alignment following completion of construction. Project construction would not require additional ground disturbance in previously undisturbed areas. Rather, construction would take place within existing roadways and would not directly alter Arroyo Mocho or Arroyo Seco, which are located within 300 feet of the alignment. As such, the project would not permanently alter the course of either the Arroyo Mocho or the Arroyo Seco, as both resources flow generally parallel to the project alignment along South Livermore Avenue and Tesla Road.

In addition, the City of Livermore General Plan includes goals and policies, such as Goal INF-3, Policy INF-3.1 P1, Objective INF-3.2, Policy INF-3.2 P3, Policy INF-3.3 P5, and Policy OSC-2.1 P2, identified in Section 4.1.2, *Regulatory Setting*, that are intended to ensure efficiency in the stormwater drainage system and regulate runoff from existing uses. Implementation of these goals and policies would reduce the potential for substantial erosion or siltation on- or off-site, reduce the rate and amount of surface runoff, reduce the potential to exceed the capacity of existing or planned stormwater drainage systems, and reduce the potential to redirect flood flows. This impact would be less than significant.

The 1997 EIR concluded that the development potential of the SLVSP would result in increased impervious surfaces, runoff, and erosion potential; however, potential impacts would be reduced by compliance with state, regional, and local erosion control requirements, including SWPPPs and the NPDES Construction General Permit. Additionally, SLVSP Policies 8-19 through 8-26 would further reduce potential impacts because these policies would require drainage plans that specify stormwater flow controls; limit peak discharge rates and properly size storm drainage facilities; require the use of permeable surfaces and detention basins; and require erosion control measures in agricultural land, implementation of SWPPPs, and channel stabilization to control stormwater quality.

Since the project would not result in an increase in the development potential of sites within the SLVSP and General Plan area, impacts related to drainage patterns would not be more severe than those analyzed in the 1997 EIR. Therefore, the direct impact of the proposed project on drainage patterns would be less than significant, and impacts from the development potential of the General Plan and SLVSP would remain less than significant. Pursuant to *CEQA Guidelines* Sections 15162(a)(3) and 15163(a), because the proposed project would not result in a significant effect that is substantially more severe than determined in the 1997 EIR, no additional mitigation measures would be required.

Mitigation Measures

None required.

Significance After Mitigation

Less than significant without mitigation.

Threshold 4:	Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Impact HYD-4 THE PROPOSED PROJECT IS NOT SUBJECT TO FLOODING FROM A TSUNAMI OR SEICHE, AND REGULATIONS FOR DEVELOPMENT WITHIN A FEMA-DESIGNATED FLOOD ZONE WOULD REDUCE THE RISK OF POLLUTANT RELEASE. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

As described in Section 4.1.1, *Setting*, the proposed project is located within FEMA Flood Zone X, which is an area of minimal flood hazard that has been determined to be outside of the 500-year floodplain and is protected by a levee from 100-year flooding. The nearest regulatory floodway to the proposed project is the Arroyo Mocho, located approximately 265 feet south of South Livermore Avenue. A Zone AE floodplain associated with the Arroyo Mocho is located adjacent to the regulatory floodway approximately 50 feet southwest of South Livermore Avenue. A 500-year floodplain is also associated with Arroyo Mocho, located approximately 15 feet southwest of South Livermore Avenue. The Zone AE floodplain identifies an area that is subject to inundation by a 100-year flood. The 500-year floodplain identifies an area with a 0.2-percent-annual-chance of flooding. However, the project would ultimately result in the replacement of existing roadway surfaces after the sewer pipelines are installed, which would not introduce new pollutants to the roadway and would result in no change to the existing flood patterns within the project alignment. In addition, compliance with Chapter 15.36 of the Alameda County Codes and Ordinances would ensure that construction would not interfere with the natural flow of stormwater in a way that would cause flooding where it would not otherwise occur or aggravate an existing flooding condition. Similarly, compliance with LMC Chapter 16.12 would ensure the control of grading and other development that could increase erosion or create flood damage.

The project alignment is located approximately 40 miles east of the Pacific Ocean and is not located within a tsunami inundation area (California Department of Conservation 2021). Therefore, the project alignment is not subject to flooding from tsunami. Similarly, seiches are a related hazard that can occur when a sudden displacement event or very strong winds happen in an enclosed or semi-enclosed body of water, such as a lake or reservoir. The closest body of water, Lake Del Valle, is located approximately 3 miles south of the project alignment. Therefore, inundation by seiche is not a potential hazard.

The project alignment falls outside of the inundation hazard areas for both the Patterson Dam and the Del Valle Dam. In addition, regular DWR inspections and required maintenance of the Patterson Dam and the Del Valle Dam substantially reduces the potential for dam failure. As a result, flooding due to dam failure is not a potential hazard.

Overall, the project alignment is not expected to experience inundation from a tsunami, seiche, or flooding. Additionally, implementation of the goals and policies in the Livermore General Plan, such as Objective PS-2.1 that focuses on minimizing flood risks, and Policy PS-2.1 P2 that requires arroyos and creeks be preserved in their natural state with regard to flooding, would further reduce the possibility of flooding in the vicinity of the project alignment. This impact would be less than significant.

The 1997 EIR concluded that the development potential of the SLVSP would result in increased development and thus potential for flooding of development in the SLVSP area; however, potential impacts would be reduced by proper siting of future development based on land use. Since the project would not result in an increase in the development potential of sites within the SLVSP and General Plan area, impacts related to flooding and inundation would not be more severe than those analyzed in the 1997 EIR. Therefore, the direct impact of the proposed project on flooding would be less than significant, and impacts from the development potential of the General Plan and SLVSP would remain less than significant. Pursuant to *CEQA Guidelines* Sections 15162(a)(3) and 15163(a), because the proposed project would not result in a significant effect that is substantially more severe than determined in the 1997 EIR, no additional mitigation measures would be required.

Mitigation Measures

None required.

Significance After Mitigation

Less than significant without mitigation.

Threshold 5:	Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan**?**

Impact HYD-5 THE PROPOSED PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF A WATER QUALITY CONTROL PLAN OR SUSTAINABLE GROUNDWATER MANAGEMENT PLAN. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

San Francisco Bay RWQCB's Basin Plan identifies specific beneficial uses and water quality objectives for each of the surface waters and groundwater management zones described in the Basin Plan, including for Arroyo Mocho and Arroyo Seco, which are located in the vicinity of the project alignment (San Francisco Bay RWQCB 2010). The proposed project would require compliance with the NPDES Construction General Permit and the LMC Chapter 13.45, which would reduce the risk of short-term erosion and increased runoff resulting during construction. The proposed project would also be subject to the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit No. CAS612008, which would require the contractor to eliminate or reduce non-stormwater discharges to waters of the nation, develop and implement a SWPPP for construction activities, and perform inspections of the stormwater pollution prevention measures and control practices to ensure conformance with the SWPPP. Compliance with such regulations would ensure that the project does not conflict with the Basin Plan, and beneficial uses would be protected for Arroyo Mocho and Arroyo Seco in the vicinity of the project alignment.

The Zone 7 Water Agency's Alternative GSP, which applies to the groundwater basin underlying the project alignment, outlines sustainable management goals and objectives, including the prevention of overdraft that would otherwise occur from too much pumping and the protection/enhancement of groundwater quality. The facilitation of adjacent development would be consistent with the City's General Plan and SLVSP, and operation of the proposed project would not result in an unanticipated demand for groundwater at the adjacent development. Small amounts of water would be required for project construction, such as water needed for dust suppression. This temporary, construction-related water demand would be similar to other construction projects in the area and would not result in a substantial decrease in available water supplies. In addition, the project would facilitate the disuse of existing residential septic systems, which would result in an overall improvement in groundwater quality in the South Livermore Valley.

Overall, the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. In fact, the project would result in improvements to groundwater quality aligned with the goals and objectives outlined in the Alternative GSP. This impact would be less than significant.

Mitigation Measures

None required.

Significance After Mitigation

Less than significant without mitigation.

4.1.4 Cumulative Impacts

A project's environmental impacts are "cumulatively considerable" if the "incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (*CEQA Guidelines* Section 15065[a][3]). The geographic scope for cumulative hydrology and water quality impacts is the Arroyo Mocho Watershed, Arroyo Las Positas Watershed, and Livermore Valley Groundwater Basin. This geographic scope is appropriate because water quality impacts along the project alignment would affect the water quality of the entire watershed, and groundwater impacts would affect the entire groundwater basin. Development that is considered part of the cumulative analysis includes construction of nearby projects in Livermore and Alameda County that are within the same watershed and/or draw water from the Livermore Valley Groundwater Basin.

Cumulative development would generally increase impermeable surface area, which could cumulatively increase peak flood flows, alter drainage patterns, reduce groundwater recharge, and increase pollutants in the regional stormwater. However, cumulative development would also be required to adhere to all applicable State and local regulations designed to control erosion and protect water quality, including the LMC, the NPDES Construction General Permit, and the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit. Any construction sites larger than one acre in size would be required to prepare and submit a SWPPP to obtain coverage under the NPDES Construction General Permit, thereby reducing the risk of water degradation on- and off-site from soil erosion and other pollutants. In addition, for certain projects, the San Francisco Bay RWQCB post-construction requirements for stormwater management encourage and require on-site treatment and infiltration of stormwater runoff. This would reduce the quantity of stormwater runoff that enters the storm drainage system which ultimately discharges to the San Francisco Bay and the Pacific Ocean. In addition, implementation of NPDES and LMC requirements would reduce

the potential for increased pollutants in stormwater and groundwater. Compliance with mandatory state and regional permitting requirements as well as implementation of the goals and policies in the City of Livermore General Plan would reduce the potential for water quality degradation and violations of water quality standards as a result of cumulative development.

Overall, potential impacts associated with hydrology and water quality would not be cumulatively considerable. Cumulative impacts related to hydrology and water quality would be less than significant.

This page intentionally left blank.

4.2 Utilities and Service Systems

This section analyzes the effects of the proposed project on utilities and service systems. It considers potential impacts with respect to water supply and infrastructure, wastewater conveyance and treatment facilities, stormwater and drainage facilities, solid waste disposal, and electricity, natural gas, and telecommunications facilities. Assessment of impacts is based partially on pertinent analysis provided in the 1997 EIR, which evaluated impacts of development under the SLVSP.

4.2.1 Setting

The following section describes the existing setting with respect to wastewater treatment providers, water suppliers, stormwater drainage facilities, solid waste facilities, electricity and natural gas providers, and telecommunications facilities serving the project alignment.

a. Water

Water Supply

The project area is served by Cal Water's Livermore District. Cal Water provides water service to approximately 69 percent of the City of Livermore's population and covers 48 percent of the area incorporated by the City of Livermore. The Cal Water Livermore District had a service population of approximately 59,814 in 2020. The Cal Water Livermore District's service population and growth projections are based on Association of Bay Area Governments census tract level projections of population, housing, and employment. Cal Water delivers water to residential, commercial, and governmental customers. Residential customers account for most of the Cal Water's service connections and 73 percent of its water uses. Cal Water provides a combination of local groundwater, pumped from 12 wells across the Livermore Valley, and surface water purchased from the Zone 7 Water Agency. Table 4.2-1 summarizes Cal Water's current and projected water supplies. Cal Water Livermore District's groundwater supply is pumped from the Livermore Valley Basin, which is not adjudicated and is not considered to be critically over-drafted. Non-residential water uses account for 22 percent of total demand and system water losses account for 5 percent (Cal Water 2021). Figure 4.2-1 shows Cal Water Livermore District's service area and the project alignment.

Table 4.2-1 Cal Water's Water Supplies – Current and Projected (acre feet per year)

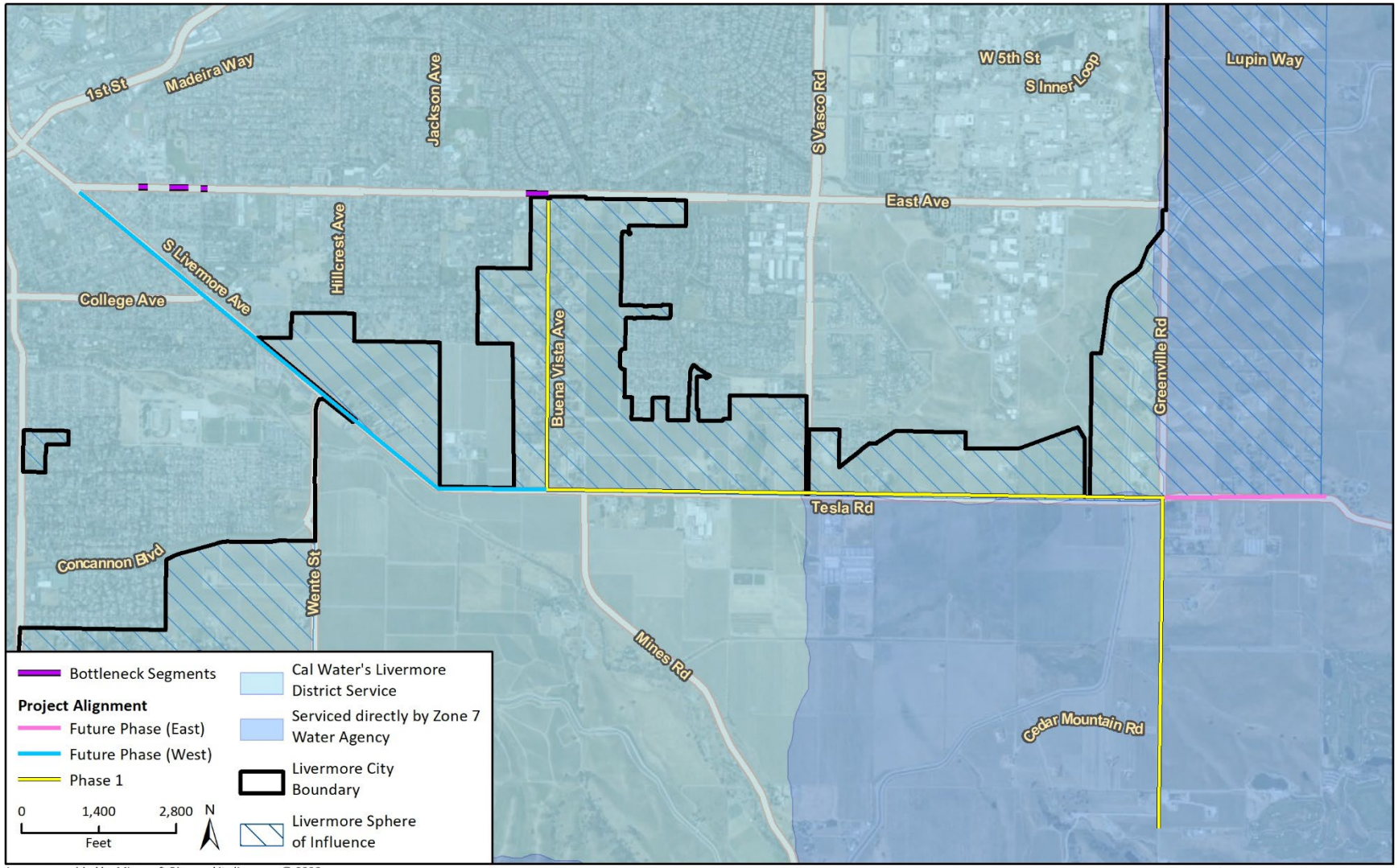
Water Supplies	2020[1]	2025	2030	2035	2040	2045
Zone 7 Water Agency						
Purchased or Imported Water	8,505	6,264	6,292	6,446	6,486	6,563
Livermore Valley Basin						
Groundwater (not desalinated)	1,066	3,069	3,069	3,069	3,069	3,069
Supply Total	**9,571**	**9,333**	**9,361**	**9,515**	**9,555**	**9,632**

The groundwater supply values shown are equivalent to the District's Groundwater Pumping Quota, pursuant to the contract with Zone 7. The purchased water supply values are the difference between total projected demand and the Groundwater Pumping Quota.

[1]Actual supplies in 2020.

Source: Cal Water 2021 (Tables 6-8 and 6-9)

Figure 4.2-1 Local Water Provider Service Areas



Imagery provided by Microsoft Bing and its licensors © 2022.

Fig 4.2-1 Cal Water's Livermore District Service Area

Water Demand

All Cal Water customers are considered urban (i.e., non-agricultural water users). Zone 7 provides water for agricultural uses. The Cal Water 2020 Urban Water Management Plan (UWMP) details water demand from 2016 to 2020 by sector, including single-family residential, multi-family residential, commercial/institutional, industrial, and landscape irrigation (Cal Water 2021). Water demand increased steadily from 2016 to 2020 due to statewide drought and water conservation measures, including conservation pricing applied by Cal Water and increased appliance water use efficiency standards. Water demand was 7,625 af in 2016, 8,110 af in 2017, and 9,571 af in 2020. Zone 7's 2020 UWMP determined that agricultural water demand was 5,810 af in 2020 (Zone 7 Water Agency 2021).

The 2020 UWMP projects future water demand through 2045 based on a water and sewer capacity rate study prepared in 2016. The executive summary of this study is included in Appendix H of the 2020 UWMP. According to the 2020 UWMP, the combination of groundwater and purchased water supply is expected to be enough to support Cal Water's projected water demand through 2045 (Cal Water 2021). Table 4.2-2 shows Cal Water Livermore District's and Zone 7's projected demands by sector, as stated in the 2020 UWMP.

Table 4.2-2 Projected Demands for Potable and Raw Water (acre feet per year)

Use Type	2025	2030	2035	2040	2045
Single Family	6,393	6,383	6,461	6,488	6,545
Multi-Family	524	662	773	814	858
Commercial	1,222	1,175	1,144	1,120	1,100
Institutional/Gov't	714	693	680	668	657
Industrial	0	0	0	0	0
Other Potable	10	10	10	10	10
Landscape	6	6	6	6	6
Losses[1]	464	431	441	449	457
Demand Total	**9,333**	**9,361**	**9,515**	**9,555**	**9,632**
Agricultural Irrigation[2]	5,500	7,800	8,300	8,300	8,300

[1] Real and apparent losses.

[2] Zone 7 supplies water for agricultural uses in the City of Livermore.

Source: Cal Water 2021 (adapted from Tables 4-1 and 4-2), Zone 7 Water Agency 2021 (adapted from Table 4-3)

Dry Year Projections

Cal Water estimates future water supply availability under single- and multiple-dry year scenarios. Cal Water projects multiple-dry year demand based on measured water use data from the multi-year drought extending from 2016-2020. Cal Water assumes the first dry year through the fourth dry year would result in no change in demand as increasingly stringent conservation measures are implemented. Table 4.2-3 summarizes Cal Water's multiple-dry year supply and demand through 2045. Under all scenarios for all years, demand remains below anticipated supply.

Table 4.2-3 Cal Water Supply and Demand in Multiple Dry Years

Year-Type	2025	2030	2035	2040	2045
First Dry Year					
First Dry Year Supply	9,822	9,846	10,006	10,047	10,128
First Dry Year Demand	9,822	9,846	10,006	10,047	10,128
Difference	0	0	0	0	0
Second Dry Year					
Second Dry Year Supply	9,822	9,846	10,006	10,047	10,128
Second Dry Year Demand	9,822	9,846	10,006	10,047	10,128
Difference	0	0	0	0	0
Third Dry Year					
Third Dry Year Supply	9,822	9,846	10,006	10,047	10,128
Third Dry Year Demand	9,822	9,846	10,006	10,047	10,128
Difference	0	0	0	0	0
Fourth Dry Year					
Fourth Dry Year Supply	9,822	9,846	10,006	10,047	10,128
Fourth Dry Year Demand	9,822	9,846	10,006	10,047	10,128
Difference	0	0	0	0	0

Units in acre feet per year

Source: Cal Water 2021 (adapted from Table 7-4)

Zone 7 Water Agency estimates future water supply availability under single- and multiple-dry year scenarios. Zone 7 Water Agency predicts adequate water supply would be available under normal year, single dry year, and multiple dry year scenarios. Table 4.2-4 summarizes Zone 7 Water Agency's multiple-dry year supply and demand through 2045. Under all scenarios for all years, demand remains below anticipated supply.

Table 4.2-4 Zone 7 Supply and Demand in Multiple Dry Years

Year-Type	2025	2030	2035	2040	2045
Normal Year					
Normal Year Supply	76,700	90,700	84,700	83,200	83,200
Normal Year Demand	50,300	52,800	53,800	55,300	55,300
Difference	26,400	37,900	30,900	27,900	27,900
Single Dry Year					
Single Dry Year Supply	65,600	92,100	94,200	92,500	92,300
Single Dry Year Demand	50,300	52,800	53,800	55,300	55,300
Difference	15,300	39,300	40,400	37,200	37,000
First Dry Year					
First Dry Year Supply	89,200	116,600	118,500	117,100	116,800
First Dry Year Demand	50,300	52,800	53,800	55,300	55,300
Difference	38,900	63,800	64,700	61,800	61,500
Second Dry Year					
Second Dry Year Supply	74,800	105,800	108,000	106,600	106,800
Second Dry Year Demand	51,700	53,360	54,200	55,300	55,300
Difference	23,100	52,440	53,800	51,300	51,500
Third Dry Year					
Third Dry Year Supply	69,100	100,600	102,700	102,300	102,300
Third Dry Year Demand	52,000	53,520	54,400	55,300	55,300
Difference	17,100	47,080	48,300	47,000	47,000
Fourth Dry Year					
Fourth Dry Year Supply	63,600	96,700	99,500	98,900	99,200
Fourth Dry Year Demand	52,250	53,580	54,700	55,300	55,300
Difference	11,350	43,120	44,800	43,600	43,900

Units in acre feet per year

Source: Zone 7 Water Agency 2021 (adapted from Tables 7-12 through 7-17)

b. Wastewater

The sewer collection system in the City of Livermore serves development within the City limits, which includes a population of approximately 87,000 people. In addition to the area within the City limits, the sewer service area includes small areas that are outside of the City limits but within the City's UGB, as well as the Ruby Hill portion of the City of Pleasanton. The City's sewer service area comprises approximately 28 square miles and the collection system consists of approximately 296 miles of gravity mains and approximately 3 miles of force mains and four pump stations (City of Livermore 2017). The City of Livermore receives sewer and wastewater treatment services from the Livermore Water Reclamation Plant (LWRP). The plant includes primary, secondary and tertiary treatment processes, and ultraviolet (UV) disinfection. LWRP solids undergo thickening,

stabilization, and dewatering prior to transport offsite for use as landfill cover. The LWRP can treat up to 8.5 million gallons per day and treats an average of 2.3 billion gallons of wastewater each year from throughout the Livermore area (City of Livermore 2021a).

In 2012, the City of Livermore assessed the operations at the LWRP and prepared an updated Master Plan. The master plan develops a roadmap for upgrading and expanding the LWRP in a manner that incorporates the appropriate technology, optimizes operations, and minimizes cost (City of Livermore 2012). Furthermore, the Sewer Master Plan was prepared in 2017 to define the City's long-term collection system infrastructure capacity needs, and to develop a plan that will provide the flexibility and system reliability that the City needs to accommodate changing future capacity needs.

Currently, most parcels along the project alignment dispose of wastewater via on-site septic systems. Parcels located along East Avenue and the western portion of Livermore Avenue are currently connected to the City's wastewater conveyance system. Parcels using septic systems for wastewater treatment and disposal are constrained from growth by existing septic systems, which are not eligible for expansion due to water quality concerns in the county.

c. Stormwater Drainage

The City of Livermore manages stormwater and regulates discharge into storm drains. The City's stormwater infrastructure includes 7,000 storm drains and miles of drainage ditches in public areas and along city streets. These drains and ditches divert rain and debris away from roads and other impermeable surfaces to prevent flooding. After stormwater flows into a storm drain, it then flows through a network of 225 miles of stormwater pipes that discharge into local flood control channels, detention ponds, and creeks. The stormwater then flows into the San Francisco Bay (City of Livermore 2021b). The City adheres with the SWRCB requirements for permitting for specific types of industrial and construction activities, such as obtaining a NPDES permit prior to construction. The City also participates in the Alameda County Clean Water Program, which facilitates local compliance with the CWA and provides BMPs for residents and businesses (County of Alameda 2017). Currently, existing drainage facilities along the project alignment are managed and operated by the City. Such facilities includes storm drain inlets and catch basins along South Livermore Avenue from East Avenue to Concannon Boulevard, along the south side of Tesla Road from South Livermore Avenue to Mines Road, along the north side of Tesla Road at Mines Road, and at the intersection of Buena Vista Avenue and East Avenue. No storm drain inlets are present along the remainder of Buena Vista Avenue, Tesla Road east of Mines Road, and Greenville Road along the project alignment.

d. Solid Waste

Solid waste generated by development in the city is collected by Livermore Sanitation. Approximately 98 percent of the City's solid waste was sent to seven landfills in 2019: Altamont Landfill, Fink Road Landfill, North County Landfill and Recycling Center, Potrero Hills Landfill, Recology Hay Road Landfill, Redwood Landfill, and Vasco Road Sanitary Landfill (CalRecycle 2021a). As shown in Table 4.2-5, all seven landfills have a substantial amount of remaining capacity. The Altamont Landfill has the most remaining capacity of 65.4 million cubic yards and has an anticipated closure date of 2025. Recology Hay Road Landfill has the latest closure date of 2077 and has a remaining capacity of 3.4 million cubic yards.

Table 4.2-5 Estimated Landfill Capacities and Closure Date

Landfill Facility	Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards)	Maximum Permitted Throughput (tons per day)	Anticipated Closure Date
Altamont Landfill	124,400,000	65,400,000	11,150	2025
Fink Road Landfill	14,640,000	7,184,701	2,400	2023
North County Landfill and Recycling Center	41,200,000	35,400,000	825	2048
Potrero Hills Landfill	83,100,000	13,872,000	4,330	2048
Recology Hay Road Landfill	37,000,000	30,433,000	2,400	2077
Redwood Landfill	26,077,000	26,000,000	2,300	2036
Vasco Road Sanitary Landfill	32,970,000	7,379,000	2,518	2022

Source: CalRecycle 2021b

e. Electricity and Natural Gas

Natural gas and electricity are provided by Pacific Gas and Electric Company (PG&E). PG&E has a service area of 70,000 square miles in northern and central California. The service area stretches from Eureka to Bakersfield, and from the Pacific Ocean to the Sierra Nevada. PG&E operates 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines. Furthermore, PG&E operates 42,141 miles of natural gas distribution pipelines and 6,438 miles of transmission pipelines (PG&E 2022). The company is regulated by the California Public Utilities Commission, which was created by the state Legislature in 1911.

f. Telecommunications

Numerous private wireless and cellular phone service providers serve the Livermore area (City of Livermore 2015). Telephone and residential internet services are provided by SBC Pacific Bell, Verizon, and Metro; and cable services are provided by Comcast Corporation.

4.2.2 Regulatory Setting

a. Federal Regulations

Clean Water Act

See the *Regulatory Setting* of Section 4.1 of this Supplemental EIR, *Hydrology and Water Quality*, for a detailed discussion of the federal Clean Water Act.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) regulates public water systems that supply drinking water (42 United States Code [USC] Section 300(f) et seq.; 40 Code of Federal Regulations [CFR] Section 141 et seq). The principal objective of the federal SDWA is to ensure that water from the tap is potable (safe and satisfactory for drinking, cooking, and hygiene). The main components of the federal SDWA are to:

- Ensure that water from the tap is potable
- Prevent contamination of groundwater aquifers that are the main source of drinking water for a community
- Regulate the discharge of wastes into underground injection wells pursuant to the Underground Injection Control program (see 40 CFR Section 144)
- Regulate distribution systems

Implementation of the federal SDWA is delegated to California.

b. State

California Green Building Standards Code

In January 2020, the State of California adopted the California Green Building Standards Code (CALGreen) which establishes mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality. These standards include a mandatory set of guidelines, as well as more rigorous voluntary measures, for new construction projects to achieve specific green building performance levels, including:

- Reducing indoor water use by 20 percent
- Reducing wastewater generation by 20 percent
- Recycling and/or salvaging 50 percent of nonhazardous construction and demolition debris
- Providing readily accessible areas for recycling by occupant

California Safe Drinking Water Act

The California SDWA (Health & Safety Code Section 116270 et seq.; 22 Cal. Code Regs. Section 64400 et seq.) regulates drinking water more rigorously than the federal law. Like the federal SDWA, California requires that primary and secondary maximum contaminant levels (MCL) be established for pollutants in drinking water; however, some California MCLs are more protective of health. The act also requires the SWRCB to issue domestic water supply permits to public water systems. The SWRCB enforces the federal and State SDWAs and regulates more than 7,500 public water systems. The SWRCB's Division of Drinking Water oversees the State's comprehensive Drinking Water Program (DWP). The DWP is authorized to issue public water system permits.

California Plumbing Code

The California Plumbing Code is codified in Title 24, California Code of Regulations, Part 5. The Plumbing Code contains regulations including, but not limited to, plumbing materials, fixtures, water heaters, water supply and distribution, ventilation, and drainage. More specifically, Part 5, Chapter 4, contains provisions requiring the installation of low flow fixtures and toilets. Existing development will also be required to reduce its wastewater generation by retrofitting existing structures with water efficient fixtures (Senate Bill [SB] 407 [2009] Civil Code Sections 1101.1 et seq.).

Regional Water Management Planning Act

Adopted by the State legislature in 2002, the Regional Water Management Planning Act, or SB 1672, authorizes preparation of integrated regional water management plans. Such plans are developed by regional water management groups, defined as three or more local public agencies, at least two of which have statutory authority over water supply. Integrated regional water management plans address qualified programs and projects relating to water supply, water quality, flood protection, or other water-related topics undertaken by the participating public agencies. Qualified projects, as detailed in the legislation, include but are not limited to groundwater, urban, and agricultural water management planning efforts, levee or flood control infrastructure maintenance or construction, water recycling projects, and water conservation programs.

UWMP Act

The California UWMP Act applies to municipal water suppliers that serve more than 3,000 customers or provide more than 3,000 acre-feet per year of water. The Act requires these water suppliers to update their UWMP every five years to identify short-term and long-term water demand management measures to meet growing water demands during normal, dry, and multiple-dry years. The UWMP should include a description of existing and planned water sources, alternative sources, conservation efforts, reliability and vulnerability assessments, and a water shortage contingency analysis.

Integrated Solid Waste Management Act of 1989 (Assembly Bill [AB] 939)

The California Integrated Waste Management Act (CIWMA) of 1989 created the (former) California Integrated Waste Management Board, now CalRecycle. Responsible for oversight of waste management in California, CalRecycle assists cities, counties, businesses, and organizations with meeting state waste reduction, reuse, and recycling goals. The CIWMA requires that local jurisdictions meet waste diversion goals and establish a framework for program implementation, solid waste planning, and solid waste facility and landfill compliance. The CIWMA was primarily intended to encourage minimization of the volume of solid waste disposed of through "transformation" (including incineration, pyrolysis, distillation, and bioconversion) and land disposal through the establishment of solid waste diversion goals for all cities and counties.

c. Regional and Local

Bay Area Integrated Regional Water Management Plan Report

Cal Water participated in the 2019 Update of the Bay Area Integrated Regional Water Management Plan (IRWMP), which covers the Livermore District. Groundwater in the region is managed by the Zone 7 Water Agency (Zone 7). As part of a regional groundwater management plan, Cal Water has agreed to a Groundwater Pumping Quota of 3,069 af annually. While the IRWMP focuses on long-range water planning needs in Cal Water's service area, the document includes a regional-scale assessment of water planning efforts, infrastructure, and pending studies and projects. The IRWMP also discusses regional water management efforts in the context of other applicable water and environmental regional plans (IRWMP 2019).

Alameda County General Plan

Alameda County's General Plan provides the policy context for the County of Alameda to achieve its vision for adequate utility infrastructure in order to maintain the health and safety of residents of Alameda County. General Plan objectives and policies from the Conservation Element that are relevant to the proposed project include the following (County of Alameda 2022):

Conservation Element Goal: To insure and maintain a continuing supply of high water quality for the citizens of Alameda County.

Objective 1: To insure sufficient water supplies of high quality for all beneficial uses.

Objective 2: To conserve ground water resources and prevent overdraft of existing ground water supplies.

Objective 4: To reduce man-caused stream and ground water pollution and general resource degeneration through cumulative impacts on surface and ground water systems.

Objective 5: To maintain all water resources in their highest quality.

Objective 6: To educate government, business and citizens to assist in the conservation of water and energy and to minimize pollution.

Objective 7: Through sound design of drainage systems throughout the County and by regulation of land use, erosion or soil caused by water could be controlled.

Objective 8: To achieve coordination of state, regional, and local water management agencies and policies throughout the County.

South Livermore Valley Area Plan

The County's South Livermore Valley Area Plan (SLVAP) provides the policy context for the SLVAP Area to achieve its vision for water conservation and utility infrastructure. The SLVAP Area includes all portions of the project alignment that are outside city limits. The SLVAP identifies sources of water supply in the SLVAP Area, and various policies intended to manage utility infrastructure. SLVAP policies relevant to the proposed project include the following (County of Alameda 2003):

Agricultural Preservation and Enhancement Policy 9: Encourage the development of additional sources of irrigation water for vineyards and other cultivated agriculture by investigating wastewater reclamation and development of other supply and delivery resources. Encourage Zone 7 to consider developing a pump monitoring and cost allocation system to cover the cost of new water in the event that additional supplies are needed.

Land Use Vineyard Area Policy 2A: The applicant must show, to the satisfaction of the County, that adequate water supplies are available to the proposed parcels for both domestic and irrigation needs, and that all proposed homesites can be served by individual septic systems. The County shall consult with the appropriate water purveyor.

Annexation and Urban Development Policy 2: Require any urban development proposal within the Vineyard Area to meet the following criteria, at a minimum:

A. All necessary public utilities and services are available.

B. The project will contribute funds for a recycled water treatment system. Contributions should equal or exceed the cost of providing recycled water equal in volume to 120% of anticipated water use of the development.

City of Livermore General Plan 2003-2025

Chapter 7, *Infrastructure and Public Services Element,* of the City's General Plan provides the policy context for Livermore to achieve its vision for water conservation and utility infrastructure. The chapter identifies regional sources of water supply in Livermore, and various goals and policies intended to protect water supply and water quality. General Plan goals and policies relevant to the proposed project include the following (City of Livermore 2015):

Goal INF-1: Provide sufficient water supplies and facilities to serve the City in the most efficient and financially sound manner, while maintaining the highest standards required to enhance the quality of life for existing and future residents.

Policy INF-1.1 P1: Potable water shall be available to the City's residents and businesses.

Policy INF-1.1 P2: The City shall maintain a water system capable of sustaining required fire flows at all times. The City shall work with California Water Service Company to insure its system also meets required fire flows.

Policy INF-1.1 P3: Support the development of additional sources of irrigation water for vineyards and other cultivated agriculture by investigating recycled water and development of other supply and delivery resources.

Policy INF-1.1 P5: Development will not result in a reduction of water quality below those standards set forth in State and federal laws and regulations.

Policy INF-1.2 P3: Structures with plumbing that are located within City limits shall connect to the water system, unless distance from public water system or other factors indicate a need for an exemption.

Policy INF-1.3 P2: Projects deemed appropriate for the use of recycled water shall be required to use recycled water, when available, for uses outlined in the State Water Code.

Policy INF-1.3 P3: The City shall adopt a series of Best Management Practices for water conservation measures that will be mandatory in new development and strongly encouraged in existing developments.

Goal INF-2: Collect, treat and dispose of wastewater in ways that are safe, sanitary, environmentally acceptable and financially sound while maintaining the highest standards required to enhance the quality of life for existing and future residents.

Policy INF-2.1 P1: Municipal sewer treatment shall be available to the City's residents and businesses.

Policy INF-2.1 P3: The approval of new development shall be conditioned on the availability of adequate long-term capacity of wastewater treatment, conveyance and disposal sufficient to service the proposed development.

Policy INF-2.1 P4: The City shall implement a wastewater disposal master plan designed to provide for the disposal of peak wet weather flows anticipated under the current vision of the General Plan. No new development entitlements shall be granted once the Average Dry Weather Flow reaches 7.0 million gallons per day at the Water Reclamation Plant until a master plan for sewer has been adopted that addresses the capacity shortfall, including a schedule for implementation.

Policy INF-2.1 P5: All new development shall demonstrate to the City that the downstream sanitary sewer system is adequately sized and has sufficient capacity to accommodate anticipated sewage flows. If the downstream mains are found to be inadequate, the developer shall provide additional facilities to accept the additional sewage expected to be generated by the development.

Policy INF-2.1 P6: Structures with plumbing that are located within City limits shall connect to the public wastewater collection system, unless topography, or distance from the public sewer system indicate a need for an exemption.

Policy INF-2.1 P7: Major sewer collection and transmission systems shall be carefully planned where they cross a seismic fault. They shall cross at right angles, or nearly so, be accessible for rapid repair, and be provided with safety features such as automatic switches, expansion joints and sufficient drop between manholes to accommodate vertical displacement across faults. Other equipment shall be provided to ensure minimal adverse impact on adjacent and surrounding areas and to facilitate restoration of service in the event of fault displacement.

Policy INF-2.1 P8: Sewer collection and transmission systems shall be designed and constructed in such a manner as to minimize potential inflow and infiltration.

Policy INF-2.1 P9: The criteria used to design the sanitary sewer system shall be in the master plan prepared for sewer as well as the guidelines for facilities planning, including reliance on gravity drainage to minimize pumping to the extent feasible and basing pipe size on the wet weather flow required pursuant to the master plan prepared for sewer.

Policy INF-2.1 P10: All new development projects shall be responsible for construction of a sanitary sewer collection and conveyance system as part of the Citywide infrastructure plan. This system shall be designed to serve developments within the approved General Plan only and shall not be extended to serve uses outside of the Urban Area.

Policy INF-2.1 P11: The sanitary sewer system shall be designed and constructed in such a manner as to minimize potential environmental impacts.

Goal INF-3: Collect, store and dispose of stormwater in ways that are safe, sanitary, environmentally acceptable and financially sound while maintaining the highest standards required to enhance the quality of life for existing and future residents.

Policy INF 3.1 P1: Design local storm drainage improvements to carry appropriate design-year flows resulting from build out of the General Plan.

Policy INF 3.1 P3: The City shall take all necessary measures to regulate runoff from urban uses to protect the quality of surface and ground-waters and other resources from detrimental conditions.

Goal INF-4: Provide utilities in ways that are safe, environmentally acceptable and financially sound.

Policy INF-4.1 P1: The City shall ensure that utilities, including electricity, natural gas, telecommunications, and cable, are available or can be provided to serve the projected population within the City in a manner which is fiscally and environmentally responsible, aesthetically acceptable to the community, and safe for residents. However, the ultimate responsibility for ensuring that the utilities are available to support new development rests on the sponsor of proposed projects.

Policy INF-4.2 P2: Process permits and approvals for utility expansions in a fair and timely manner in accordance with the expansion of new development.

South Livermore Valley Specific Plan

Chapter 8, *Public Utilities Element,* of the City's SLVSP provides the policy context for the SLVSP Area to achieve its vision for water conservation and utility infrastructure. The chapter identifies sources of water supply in the SLVSP Area, and various policies intended to manage utility infrastructure. SLVSP policies relevant to the proposed project include the following (City of Livermore 1997):

Policy 8-1: City shall request that its water supply be augmented to allow development of up to an average of 200 units per year in accordance with the growth management policies of the Specific Plan. The City shall impose a condition on all tentative maps that prior to approval of a final subdivision map that (1) Zone 7 has agreed to provide the water supplier for the uses permitted by the map, an adequate and permanent domestic water supply and an emergency firefighting supply sufficient to service the proposed development and (2) the quality of the domestic water meets all applicable state and local standards. The City shall deny approval of a tentative subdivision map unless, at the time of tentative map approval, the City determines that the domestic water supply and emergency firefighting supply available from Zone 7 is sufficient to serve all existing domestic uses within the City and uses that may be permitted in accordance with the number of units available for allocation pursuant to the city's growth management program. Development that requires agricultural mitigation shall be prohibited if adequate and permanent irrigation water is unavailable for the land to be used for agricultural mitigation.

Policy 8-2: City shall condition adoption of individual development proposals for the planning area on adequate delineation of the capacity, phasing, and financing of required domestic water system improvements, including the full cost of securing, conveying, and storing new water sources. The City shall work with Zone 7 to determine water supply needs and sources.

Policy 8-5: New development in the Specific Plan area shall contribute funds for a recycled water treatment and distribution system. Each unit shall pay an additional 20% of the Zone 7 water connection fee to support the City's use of reclaimed water.

Goal: Provide an adequate, efficient, and environmentally compatible sanitary sewer system for the South Livermore Valley Specific Plan area.

Policy 8-13: Adequate sewage treatment and export capacity to accommodate Specific Plan development shall be reserved at the time of Specific Plan adoption.

Policy 8-14: The City shall investigate alternative methods for municipal sewage treatment and disposal, and give priority to alternatives which utilize water recycling or reclamation, such as the City's demonstration Reverse Osmosis plant.

Policy 8-16: In accordance with the polices of the San Francisco Bay Regional Water Quality Control Board policies, on-site wastewater treatment systems, such as package plants and septic systems, will be prohibited within the Specific Plan area, except that on-site septic systems that conform with the policies of the San Francisco Regional Water Quality Control Board and Zone 7 policies may be permitted for uses outside of the City's Urban Growth Boundary.

Livermore Municipal Code

Chapter 8.08 of the Livermore Municipal Code provides solid waste management provisions for the City and Chapter 13.32 discusses the City's provisions for wastewater collection and treatment. Specifically, Chapter 13.32 regulates direct and indirect discharge into the wastewater collection and treatment systems by establishing standards of discharge through regulations as necessary to control the quality and quantity of wastewater entering the system, to comply with all applicable state and federal laws required by the Clean Water Act and the general pretreatment regulations. Chapter 8.08 finds that a recyclable materials and compostable materials collection and processing program is necessary for the City to achieve the diversion goals mandated by the Integrated Waste Management Act of 1989. In addition, is also establishes regulations to properly store and dispose of solid waste safely.

4.2.3 Impact Analysis

a. Methodology and Significance Thresholds

Assessment of impacts is based on review of site information and conditions, pertinent analysis provided in the 1997 EIR, analysis provided in the CLWD's current UWMP, and City information regarding utility-related issues, including water supply and facilities, wastewater facilities, and solid waste. For the purposes of this Supplemental EIR and in accordance with the environmental checklist contained in CEQA Guidelines Appendix G, a utilities and service systems impact is considered significant if the project would:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects.
2. Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple-dry years.
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
4. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
5. Not comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

b. Prior Environmental Analysis

Chapter 4.9 (Public Services) of the 1997 EIR analyzes the SLVSP's impacts related to water supplies and wastewater treatment capacity. The 1997 EIR does not address the issues of construction or relocation of stormwater drainage, electric power, natural gas, or telecommunications facilities; sufficient water supplies during normal, dry, and multiple dry years; or of solid waste generation. The project would involve the construction of new sewer pipelines that were not analyzed in the 1997 EIR and could therefore result in new impacts related to utilities and service systems. Therefore, all the CEQA checklist items listed above under the *Methodology and Significance Thresholds* section are addressed in this analysis.

c. Project Impacts and Mitigation Measures

Threshold 1:	Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
Threshold 3:	Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Impact UTIL-1 THE PROJECT WOULD NOT INDUCE UNANTICIPATED GROWTH IN THE CITY OR SURROUNDING AREA BECAUSE IT WOULD SERVE EXISTING DEVELOPMENT POTENTIAL CONSISTENT WITH THE GENERAL PLAN AND SLVSP. FURTHER, THE PROJECT WOULD NOT DIRECTLY RESULT IN WASTEWATER GENERATION; HOWEVER, THE PROJECT WOULD INCREASE WASTEWATER IN THE CITY'S CONVEYANCE AND TREATMENT SYSTEM BY REPLACING SEPTIC SYSTEMS AS THE PRIMARY TREATMENT METHOD OF PARCELS ALONG THE PROJECT ALIGNMENT. IMPACTS FROM THE PROPOSED PROJECT RELATED TO WATER, WASTEWATER, STORMWATER, ELECTRICITY, NATURAL GAS, AND TELECOMMUNICATION FACILITIES WOULD BE LESS THAN SIGNIFICANT; HOWEVER, WATER AND WASTEWATER FACILITY IMPACTS FROM THE DEVELOPMENT POTENTIAL OF THE SLVSP WOULD REMAIN SIGNIFICANT AND UNAVOIDABLE, CONSISTENT WITH THE FINDINGS IN THE 1997 EIR.

Water

Water would be required for temporary construction activities on the project alignment, including dust suppression, grading and grubbing, compaction, construction equipment wheel washing, and concrete mixing and casting. Water consumption by construction workers and cleaning of portable toilets on the project alignment may also account for a small portion of overall construction water demand.

Watering for dust suppression would demand the most water during construction. The Bay Area Air Quality Management District (BAAQMD) has not established a quantitative threshold for fugitive dust emissions but rather states that projects that incorporate BMPs for fugitive dust control during construction, such as watering exposed surfaces and limiting vehicle speeds to 15 miles per hour, would have a less than significant impact related to fugitive dust emissions. The project would be required to include implementation of these BMPs consistent with Objective OSC-6.1 Policy 1 in City's General Plan (2015).

This small amount of water would be similar to other construction projects in the vicinity and would result in a similar temporary impact. Furthermore, as discussed in Section 4.2.1, *Setting*, there are adequate supplies available and the project would not include installation of new lateral extensions, valves, or other appurtenances for potable water; project operation would not require water supply. Lastly, the project would not induce unanticipated growth in the City or surrounding area because it would serve existing development potential consistent with the General Plan and SLVSP. As such, no change to existing operations is expected to result from the project. The project would facilitate the development potential consistent with the General Plan and SLVSP, which could result in the construction of event center-type facilities and domestic water use on wineries adjacent to the project alignment. The additional water demand from this development potential would not

include increased water demand for agricultural uses, as the land adjacent to the project alignment is already in active agricultural use.

The 1997 EIR concluded that Zone 7 does not have adequate capacity to accommodate increased water demand from development potential of the SLVSP but that potential impacts from the construction of water infrastructure would be less than significant. Since the project would not result in an increase in the development potential of sites within the SLVSP and General Plan area, impacts related to water supplies and water infrastructure would not be more severe than those analyzed in the 1997 EIR. Therefore, proposed project would not result in the relocation or construction of new water infrastructure, and impacts would be less than significant; however, impacts from the development potential of the General Plan and SLVSP would remain significant and unavoidable. Pursuant to *CEQA Guidelines* Section 15162(a)(3) and Section 15163(a), because the proposed project would not result in a significant effect that is substantially more severe than determined in the 1997 EIR, no additional mitigation measures would be required.

Wastewater Treatment

The project would involve an extension of existing City sewer lines and the project itself would not generate wastewater during construction or operation. However, the project would enable increased wastewater in the system by replacing septic systems as the primary treatment method. Approximately 5 miles of sewer lines would be installed and would support the existing development potential consistent with the City's General Plan and SLVSP. The expanded sewer facilities would allow existing wineries to connect to the City's wastewater system. Subject to necessary approvals, the project would also allow existing residences to connect to the City's wastewater system and cease the use of their on-site septic systems. The project would also allow new development that is located along the sewer alignment and consistent with the General Plan and SLVSP to connect to the expanded sewer facilities. This would result in an increase in wastewater transported to and treated at the LWRP, consistent with the development potential of the adjacent parcels pursuant to the General Plan and SLVSP.

Most of a winery's typical wastewater generation occurs during the crush season (between September and November), based on the weather from year to year as well as winery size (HydroScience 2022). The highest organic loading that could impact facilities at the LWRP would occur during the crush season. Total peak sewer flow from all existing uses that could potentially discharge to the LWRP with implementation of the proposed project is estimated at 106,464 gallons per day during crush season. Peak sewer flow during crush season could increase to 141,335 gallons per day when buildout occurs along the sewer alignment. Peak sewer flows from the sewer expansion are predicted outside the crush season during wet weather. Peak wet weather sewer flows are estimated at 308,800 gallons per day and peak ultimate wet weather flows are estimated at 396,000 gallons per day. These peak wet weather flows are used to analyze impacts to the existing sewer collection system. A preliminary analysis indicates that, with implementation of the Bottleneck Project, the existing sewer conveyance system could handle the estimated peak wet weather instantaneous flow (HydroScience 2022).

Untreated sewer flows during crush and bottling activities have a biochemical oxygen demand[1] that is 14 to 28 times higher than typical residential sewage. Based on the 2012 WRP Plant Master Plan, the primary clarifiers and aeration tanks at the LWRP could handle an additional 400,000 gallons per day of average dry weather residential wastewater, or approximately 14,000 gallons per day of

[1] Definition: the amount of dissolved oxygen that must be present in water for microorganisms to decompose the organic matter in the water, used as a measure of the degree of pollution.

untreated winery sewage beyond currently projected General Plan buildout flows (City of Livermore 2021c). The preliminary analysis estimates that existing flows from South Livermore Valley wineries along the proposed sewer expansion alignment are approximately 33,715 gallons per day (HydroScience 2022). Therefore, untreated organic flows from wineries could overload the treatment processes at the LWRP. Livermore Municipal Code Section 13.32.060 prohibits discharge into the City's system that would interfere with the performance or operation of the LWRP. Therefore, pre-treatment of the organic flows from wineries that apply for a sewer connection to the proposed system may be required upon City approval of future connections to the proposed alignment to reduce the potential for the increased sewer flows to overload the treatment processes at the LWRP.

The project is intended to support uses that are consistent with the City's General Plan, SLVSP, SLVAP or current zoning, and subject to Alameda County Measure D; should development on adjacent parcels that is not consistent with existing land use designations and zoning be proposed, additional environmental review would be required and, potentially, amendments to the governing land use plans and zoning. Furthermore, the project would comply with General Plan Goal INF-2 and all policies under Goal INF-2 as shown above in Section 4.2.2. These policies support the goal to collect, treat, and dispose of wastewater in ways that are safe, sanitary, environmentally acceptable, and financially sound while maintaining the highest standards required to enhance the quality of life for existing and future residents.

The 1997 EIR concluded that the LWRP would require expansion to accommodate increased wastewater generated from development potential of the SLVSP; however, potential impacts from the construction of wastewater infrastructure would be less than significant since they would be constructed during the construction of new streets and installation of other utilities. Since the project would not result in an increase in the development potential of sites within the SLVSP and General Plan area, impacts related to wastewater capacity would not be more severe than those analyzed in the 1997 EIR. Therefore, the proposed project would not result in the relocation or construction of wastewater infrastructure, and impacts would be less than significant; however, impacts from the development potential of the General Plan and SLVSP would remain significant and unavoidable. The impacts of organics in sewage from wine production on the treatment processes at the LWRP would need to be studied further to determine whether and what level of pre-treatment by individual users would be required. The City would conduct infrastructure analysis as part of the comprehensive 2045 General Plan Update and corresponding Sewer Master Plan Update, which would determine the types and thresholds of any necessary and future LWRP improvements needed to support city-wide wastewater treatment needs.

Stormwater Drainage

As discussed in Section 4.1, *Hydrology and Water Quality*, the project would maintain the same area of impervious surfaces because no buildings would be constructed as a result of the proposed project, and the project would not create unanticipated growth in its vicinity. The existing stormwater drainage system would not be modified by the project, and the repaved roadways would convey stormwater runoff to existing stormwater drainage systems consistent with existing conditions. In addition, no new drainage facilities would be needed, and the amount of surface runoff would not increase as a result of the project. Therefore, the project would not result in the relocation or construction of new stormwater drainage infrastructure, and impacts would be less than significant.

Electricity and Natural Gas

The project would not involve any components requiring electrical or natural gas service to the project alignment during both construction and operation. There would be no impacts with respect to new or expanded electric power or natural gas facilities. Additionally, the project would not induce unanticipated growth in the City or surrounding area because it would serve existing development potential consistent with the City's General Plan, SLVSP, and SLVAP, in conformance with Alameda County Measure D. Therefore, the project would not result in the relocation or construction of new electricity or natural gas infrastructure, and impacts would be less than significant.

Telecommunications

The project would not involve any components requiring telecommunications infrastructure and would not involve the relocation of existing telecommunications facilities. Additionally, the project would not induce unanticipated growth in the City or surrounding area because it would serve existing development potential consistent with the City's General Plan, SLVSP, and SLVAP, in conformance with Alameda County Measure D. Therefore, the project would not result in the relocation or construction of new telecommunications infrastructure, and no impact would occur.

Mitigation Measures

None required for the proposed project.

None adopted in the 1997 EIR related to the development potential of the SLVSP.

Significance After Mitigation

Less than significant without mitigation for the proposed project.

Significant and unavoidable water and wastewater facility impacts in the 1997 EIR related to the development potential of the SLVSP.

Threshold 2:	Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Impact UTIL-2 THE PROJECT WOULD NOT DIRECTLY RESULT IN INCREASED WATER DEMAND. BASED ON CAL WATER'S WATER SUPPLY AND DEMAND PROJECTIONS, PROJECTED WATER SUPPLIES ARE SUFFICIENT TO MEET THE ANTICIPATED WATER DEMAND OF REASONABLY FORESEEABLE FUTURE DEVELOPMENT DURING NORMAL, DRY, AND MULTIPLE DRY YEARS, AS SHOWN IN TABLE 4.2-3 AND TABLE 4.2-4. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

In order to mitigate potentially significant construction dust impacts, the City would require implementation of the BAAQMD's basic construction dust control measures as conditions of approval for all individual development projects or infrastructure improvement contracts in the SLVSP area which includes watering areas at least twice daily. This would result in demand for small quantities of water during construction. However, water demand would be temporary and would not result in a long-term strain on water supplies. Given the temporary and minimal nature of construction water demand, impacts related to construction water consumption would be less than significant.

The project would support existing and future permitted uses to achieve the vision of the General Plan, SLVSP, and SLVAP, in conformance with Alameda County Measure D. As a result, the project would not indirectly cause unanticipated growth in the area. Therefore, no significant increase in demand on water supplies would occur under project operation. Furthermore, as shown in Table 4.2-3, the 2020 UWMP shows that Cal Water will have sufficient water supplies to meet the City's water demand through 2045 for normal, single dry, and multiple dry year scenarios. Cal Water's 2020 UWMP considers all urban water demand from the development potential described in the City's General Plan; therefore, the 2020 UWMP projections of adequate water during normal, single dry, and multiple dry year scenarios incorporate the potential development of wineries and residences along the project alignment. Similarly, Zone 7's 2020 UWMP considers all agricultural irrigation water demand in the vicinity of the City and projects adequate water for agricultural uses along the project alignment (refer to Table 4.2-4). The project would not induce unanticipated growth in the City or surrounding area because it would serve development potential consistent with the City's General Plan, SLVSP, and SLVAP, in conformance with Alameda County Measure D. Therefore, there would be sufficient water supplies available to serve the proposed project and reasonably foreseeable future development during normal, dry, and multiple dry years, and impacts would be less than significant.

Mitigation Measures

None required.

Significance After Mitigation

Less than significant without mitigation.

Threshold 4:	Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
Threshold 5:	Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Impact UTIL-3 THE PROJECT WOULD NOT GENERATE SOLID WASTE IN EXCESS OF STATE OR LOCAL STANDARDS, OR IN EXCESS OF THE CAPACITY OF LOCAL INFRASTRUCTURE. THE PROJECT WOULD NOT IMPAIR THE ATTAINMENT OF SOLID WASTE REDUCTION GOALS AND WOULD COMPLY WITH FEDERAL, STATE, AND LOCAL STATUTES AND REGULATIONS RELATED TO SOLID WASTE. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Project construction would generate construction debris, including concrete, asphalt, and land-clearing debris. Approximately 2,140 cubic yards of asphalt is anticipated to be exported. The project would be required to comply with federal, state, and local statutes and regulations related to solid waste. In accordance with 2016 CALGreen requirements, the project would be required to achieve a minimum of 65 percent diversion rate for construction waste. The project would also comply with the City's Solid Waste Ordinance, codified in LMC Chapter 8.08, which establishes regulations to properly store and dispose of solid waste safely. Pursuant to applicable regulatory requirements, the project would comply with construction waste BMPs to divert a minimum of 50 percent of construction and demolition debris and 100 percent of concrete, asphalt, and land-clearing debris. Furthermore, the project would not involve the development of solid waste-generating uses and project construction would generate minimal solid waste that would not exceed the capacity of the landfills, as shown in Table 4.2-5. Additionally, the project would not

induce unanticipated growth in the City or surrounding area because it would serve existing development potential consistent with the City's General Plan, SLVSP, and SLVAP, in conformance with Alameda County Measure D. Because the project would not generate solid waste in excess of the capacity of local infrastructure and would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, impacts would be less than significant.

Mitigation Measures

None required.

Significance After Mitigation

Less than significant without mitigation.

4.2.4 Cumulative Impacts

A project's environmental impacts are "cumulatively considerable" if the "incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (*CEQA Guidelines* Section 15065[a][3]).

a. Water

The geographic scope for cumulative water supply impacts is the Cal Water Livermore District service area, which includes areas located in eastern Alameda County, including the Livermore-Amador Valley. This geographic scope is appropriate because, as the local water purveyor, Cal Water is responsible for supplying potable water to all residential, commercial, industrial, and fire protection uses within its service area, including the project site. Development that is considered part of the cumulative analysis includes construction of nearby projects in Livermore and Alameda County that would be served by Cal Water. Land uses include residential, mixed-use development, senior living facilities, residential care facilities, commercial retail, and agricultural.

Cumulative development in the Cal Water service area would continue to increase demands on water supplies. By 2045, Cal Water anticipates a total normal year demand of 9,632 acre feet per year, an increase of 61 acre feet per year from the anticipated 2020 demands (Cal Water 2021). This anticipated increase in demand is based on planned and pending future development included in the 2020 UWMP. A substantial portion of the cumulative projects included in this analysis, as well as the project site, therefore, at least a portion of the cumulative water demand associated with these projects is accounted for in Cal Water's demand projections in the 2020 UWMP.

As demonstrated in *Impact UTIL-2*, above, the project would account require small quantities of water during construction, which would not affect Cal Water's excess water supply during all normal, single-dry, and multiple-dry year scenarios through 2040 and water demand from project construction would be both near-term and temporary. Cal Water has projected that it will be able to fulfill future demand associated with planned, pending, and reasonably foreseeable future projects in the Cal Water service area. Furthermore, future projects would be required to obtain service commitments from Cal Water prior to construction, and those meeting the definition of a project pursuant to SB 610 would be required to prepare project specific Water Supply Assessments. As such, cumulative impacts related to water would be less than significant.

b. Wastewater

The geographic scope for cumulative wastewater facilities impacts is the service area for the LWRP, which includes areas throughout Livermore and portions of the unincorporated County (City of Livermore 2022). This geographic scope is appropriate because the LWRP would receive wastewater flows from sites that would connect to the project alignment. Impacts would be cumulatively significant if cumulative development in the service area would exceed the capacity of the LWRP.

As described in *Impact UTIL-1*, the LWRP can currently treat approximately up to 8.5 million gallons per day and treats an average of 2.3 billion gallons of wastewater each year from throughout the Livermore area. Planned, pending, and reasonably foreseeable development would continue to increase demands on the existing wastewater treatment and conveyance facilities in the LWRP service area. However, the project itself would not generate additional wastewater and would solely convey wastewater. As such, the project would not induce unanticipated growth in the City or surrounding area because it would serve existing development potential consistent with the City's General Plan, SLVSP, and SLVAP, in conformance with Alameda County Measure D. Furthermore, in accordance with Policy 3 under Goal INF-2.1 of the General Plan, future projects would be required to obtain commitments from the City of Livermore to provide wastewater treatment services prior to construction, which would be dependent on remaining treatment capacity at the LWRP. Therefore, cumulative impacts associated with wastewater services would be less than significant.

c. Stormwater

Cumulative impacts to stormwater/drainage facilities are discussed in Section 4.1, *Hydrology and Water Quality*. Individual projects would be subject to the stormwater capture and treatment requirements of the applicable MS4 Permit, reducing potential impacts to stormwater drainage facilities. Therefore, cumulative impacts to stormwater/drainage facilities would be less than significant.

d. Solid Waste

The geographic scope for cumulative solid waste impacts encompasses all areas in the region that contribute solid waste to the following landfills: Altamont Landfill, Fink Road Landfill, North County Landfill and Recycling Center, Potrero Hills Landfill, Recology Hay Road Landfill, Redwood Landfill and Vasco Road Sanitary Landfill. This geographic scope is appropriate because, as discussed in Section 4.2.1, *Setting*, 98 percent of the City's solid waste was sent to those seven landfills. These landfills would receive project-generated solid waste and, consequently, the project would contribute to capacity constraints at these solid waste disposal facilities.

Planned, pending, and reasonably foreseeable future development in the service area of these seven landfills would result in increased solid waste generation. As discussed in detail under *Impact UTIL-3*, the project does not propose the development of any solid waste-generating uses and project construction would generate minimal solid waste that would not exceed the capacity of the landfills (CalRecycle 2021a). Compliance with applicable solid waste regulations and, for projects in Livermore, General Plan policies that would maintain or improve upon solid waste diversion rates. Other cities in the region are also subject to solid waste diversion requirements and implementation of waste diversion programs and policies in order to meet State-mandated solid waste diversion rates. For example, AB 939 requires cities to divert 50 percent of solid waste from landfills. Given the nominal fraction of annual throughput accounted for by the project and local, regional, and

statewide efforts to improve solid waste diversion rates, cumulative impacts to solid waste facilities would be less than significant.

e. Electric Power and Natural Gas Facilities

The geographic scope for cumulative electricity and natural gas impacts is the service boundary of PG&E. This geographic scope is appropriate because local providers are responsible for providing adequate electricity and natural gas infrastructure to all land uses within Livermore, including parcels along the project alignment. Cumulative development projects would be subject to applicable local, regional, State, and federal policies regarding energy efficiency, in turn reducing the need for new or expanded electrical and natural gas facilities. As such, cumulative impacts would be less than significant.

f. Telecommunication

The geographic scope for cumulative telecommunications impacts is the service boundary of local telecommunications providers, such as SBC Pacific Bell, Verizon, Metro, and Comcast Corporation. This geographic scope is appropriate because local providers are responsible for providing adequate telecommunication infrastructure to all land uses within the City and surrounding area, including the project site.

As discussed above under *Impact UTIL-1*, the project would not involve undergrounding of telecommunications lines. Cumulative development would increase demand for telecommunications infrastructure in Livermore. However, cumulative projects would each be required to provide adequate telecommunications infrastructure upgrades on a project-by-project basis and would be subject to the appropriate level of project-specific environmental review. As with the project, such upgrades would typically be expected to occur within the development footprints of other cumulative projects. Therefore, cumulative impacts related to telecommunications infrastructure would be less than significant.

5 Other CEQA Required Discussions

This section discusses growth-inducing impacts, irreversible environmental impacts, and energy impacts that would be caused by the proposed project.

5.1 Growth Inducement

CEQA Guidelines Section 15126(d) requires a discussion of a proposed project's potential to foster economic or population growth, including ways in which a project could remove an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. The proposed project's growth-inducing potential is therefore considered significant if project-induced growth could result in significant physical effects in one or more environmental issue areas.

5.1.1 Population Growth

As determined by the California Department of Finance and the Association of Bay Area Governments, Livermore has an estimated population of 91,216 with 33,004 housing units and the population growth forecast is 112,905 households by 2040 and 847,000 households in Alameda County by 2050 (California Department of Finance 2021, Association of Bay Area Governments 2021). As discussed in Environmental Checklist Section 14, *Population and Housing*, of the Initial Study (Appendix IS), the proposed project would not induce unanticipated growth in Livermore or the surrounding area because it would serve existing development potential consistent with the General Plan and SLVSP. The project would not result in an increase in population above the projections provided in the 1997 EIR (population of 4,160 people in the SLVSP area from the development potential of the SLVSP). Therefore, the project would not cause unanticipated growth in the City or surrounding area. The proposed project would not involve the construction of residences and would not generate new jobs in the City, aside from temporary construction jobs, which would be expected to be drawn from the existing regional work force. Therefore, the project would not induce substantial unplanned growth, directly or indirectly.

5.1.2 Economic Growth

The proposed project would generate temporary employment opportunities during construction. Because construction workers would be expected to be drawn from the existing regional work force, project construction would not be growth-inducing from a temporary employment standpoint. The proposed project would not induce substantial economic expansion to the extent that direct physical environmental effects would result. The project would amend the UGB language to allow the extension of sanitary sewer lines to serve adjacent parcels containing residences and wineries located within and near the City of Livermore. The expansion of wineries to meet existing development potential that is currently constrained by septic system limitations would contribute to the region's economy and is considered economic growth. However, the project is intended to support uses that are consistent with the City's General Plan, SLVSP, and/or current zoning. Should development on adjacent parcels that is not consistent with existing land use designations and zoning be proposed, additional environmental review would be required. Because the project would

serve existing development potential consistent with the City's General Plan and SLVSP, no unanticipated economic growth would occur as a result of the project.

5.1.3 Removal of Obstacles to Growth

The project would amend the UGB language to allow the extension of sanitary sewer lines to serve adjacent parcels containing residences and wineries located within and near the City of Livermore. These adjacent parcels are currently constrained from meeting their development potential by septic systems, as the County Department of Environmental Health is not allowing for the expansion of existing septic systems or installation of new septic systems in this area due to documented groundwater quality issues. The project would involve the construction of sanitary sewer lines that would remove this development constraint, allowing adjacent parcels to meet their existing development potential consistent with the City's General Plan and SLVSP, the impacts of which were studied in the 1997 EIR. While the project would remove an obstacle to growth along the alignment, it would not result in unforeseen new construction or associated environmental impacts along the alignment. The project would not induce unanticipated growth in the City or surrounding area because it would serve existing development potential consistent with the City's General Plan and SLVSP. Should development on adjacent parcels that is not consistent with existing land use designations and zoning be proposed, City or County approval of ordinance and/or plan amendments may be required, and additional environmental review would be required. Because the project would serve existing development potential consistent with the City's General Plan and SLVSP, no unanticipated growth would occur as a result of the project.

5.2 Irreversible Environmental Effects

The *CEQA Guidelines* require that EIRs contain a discussion of significant irreversible environmental changes. This section addresses non-renewable resources, the commitment of future generations to the proposed uses, and irreversible impacts associated with the proposed project.

Project construction would involve an irreversible commitment of construction materials and non-renewable energy resources. Construction would involve the use of materials and energy, some of which are non-renewable resources, to construct the expanded sewer lines. Consumption of these resources would occur with any development in the region and is not unique to the proposed project.

The proposed project would also irreversibly increase local demand for non-renewable energy resources such as petroleum products during construction. However, energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than 5 minutes and would minimize unnecessary fuel consumption. Construction equipment would be subject to the USEPA Construction Equipment Fuel Efficiency Standard, which would also minimize inefficient, wasteful, or unnecessary fuel consumption. Pursuant to applicable regulatory requirements, the project would comply with construction waste BMPs to divert a minimum of 50 percent of construction and demolition debris and 100 percent of concrete, asphalt, and land-clearing debris. These practices would result in efficient use of energy necessary to construct the project. Furthermore, in the interest of cost-efficiency, construction contractors would not utilize fuel in a manner that is wasteful or unnecessary.

Consequently, the project would not use unusual amounts of energy or construction materials and impacts related to consumption of non-renewable and slowly renewable resources would be less than significant. Again, consumption of these resources would occur with any development in the region and is not unique to the proposed project.

Additional vehicle trips associated with project construction would incrementally increase local traffic and regional air pollutant and GHG emissions. However, as discussed in Environmental Checklist Section 3, *Air Quality*, and Environmental Checklist Section 8, *Greenhouse Gas Emissions*, of the Initial Study (Appendix IS), project construction would not generate air quality or GHG emissions that would result in a significant impact. Project operation would not increase energy use in the form of electricity or gasoline and diesel fuel consumption. The project would not result in unanticipated growth in the vicinity; no change to existing operations would result from the project. Additionally, Environmental Checklist Section 17, *Transportation and Traffic*, of the Initial Study (Appendix IS) concluded that the proposed project would not change the existing roadways, increase commercial or residential development in the area, generate growth, or create an increase in traffic in the project vicinity. Project operation would not generate vehicle trips, and there would be no change to existing roadways or increase in vehicle miles travelled.

The project would not involve construction of residences and would not generate new jobs in the City; therefore, the project would not increase the demand for fire, police, or other public services beyond what is anticipated in the City's General Plan and SLVSP, the impacts of which were studied in the 1997 EIR. Therefore, as discussed in Environmental Checklist Section 15, *Public Services*, of the Initial Study (Appendix IS) and Section 4.2, *Utilities and Service Systems*, of this Supplemental EIR, impacts to public and utility service systems would not be significant. CEQA requires decision makers to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve a project. The analysis contained in this Supplemental EIR concludes that the proposed project would not result in any significant and unavoidable impacts.

This page intentionally left blank.

6 Alternatives

As required pursuant to *CEQA Guidelines* Section 15126.6, this Supplemental EIR examines a range of reasonable alternatives to the proposed project that would attain most of the basic project objectives but would avoid or substantially lessen the significant adverse impacts. As described in Section 2, *Project Description*, the objectives for the proposed project, are as follows:

- Improve groundwater quality in the South Livermore Valley area relative to nitrates, which is associated with residential septic systems and livestock keeping
- Facilitate the development potential of existing and new wineries, visitor serving commercial uses, and residences consistent with the City's General Plan, SLVSP, and SLVAP subject to Alameda County Measure D
- Enhance the short- and long-term economic viability of agriculture and viticulture in the South Livermore Valley area, consistent with Goals LU-13 and LU-14 of the City's General Plan

Included in this analysis are three alternatives, including the CEQA-required "no project" alternative, that involve changes to the project that may reduce the project-related environmental impacts as identified in this Supplemental EIR. Alternatives have been developed to provide a reasonable range of options to consider that would help decision makers and the public understand the general implications of revising or eliminating certain components of the proposed project. The following alternatives are evaluated in this Supplemental EIR:

- Alternative 1: No Project/No Construction
- Alternative 2: No Project/On-Site Wastewater Treatment
- Alternative 3: Alternative Alignment

Detailed descriptions of the alternatives are included in the impact analysis for each alternative. The potential environmental impacts of each alternative are analyzed in Sections 6.1 through 6.3.

6.1 Alternative 1: No Project/No Construction

6.1.1 Description

Alternative 1 assumes that the UGB language revision is not approved by a majority of voters, and that the proposed pipeline and upsizing of existing pipeline along East Avenue are not constructed. The current uses of adjacent parcels for residential and agricultural uses would continue, and wastewater would continue to be discharged to on-site septic systems. Parcels adjacent to the alignment are constrained from growth by existing septic systems, which are not eligible for expansion due to water quality concerns in the county. Alternative 1 would not achieve any project objectives because groundwater quality would not be improved in the South Livermore Valley, it would be economically infeasible for existing wineries and residences to realize their development potential under the General Plan and SLVSP, and the economic viability of agriculture and viticulture in the region would not be enhanced.

6.1.2 Impact Analysis

a. Hydrology and Water Quality

Alternative 1 would maintain the existing UGB, which would not allow for the construction of sewer pipeline outside of City limits. As a result, activities such as removal of the existing roadbed, grading and excavation, installation of the new sewer pipe, backfilling of the trench, and repaving would not take place. Alternative 1 would avoid the potential water quality impacts associated with construction and upsizing of the pipelines. However, Alternative 1 would not allow residential and agricultural parcels adjacent to the project alignment to connect to the City's wastewater system, and wastewater would continue to be discharged to on-site septic systems. Therefore, groundwater quality would not improve in the South Livermore Valley area. Overall, Alternative 1 would have less than significant impacts related to hydrology and water quality. However, this alternative would result in increased impacts to hydrology and water quality compared to the project due to the continued groundwater impacts resulting from discharging wastewater to on-site septic systems.

b. Utilities and Service Systems

Alternative 1 would result in no construction activities and would not facilitate the development potential of sites adjacent to the alignment. Alternative 1 would not result in additional demand for water from temporary construction activities and development of adjacent sites. Similar to the proposed project, Alternative 1 would result in no changes to operational stormwater runoff. Neither Alternative 1 nor the proposed project would require expanded electric power, natural gas facilities, or telecommunications infrastructure. Alternative 1 would not result in an increase in water demand or wastewater generation; therefore, the demand for wastewater treatment facilities would not increase. In addition, Alternative 1 would not generate solid waste from construction. Therefore, impacts to utilities and service systems would be less than significant under Alternative 1, and reduced as compared to the proposed project.

c. Other CEQA Topics

Overall, Alternative 1 would maintain the existing conditions along the project alignment and construction activities would not occur. As a result, there would be no impact to aesthetics, agriculture and forestry resources, land use and planning, mineral resources, public services, recreation, or wildfire, similar to the project.

Alternative 1 would not involve the construction or expansion of new residences or businesses, nor would it extend existing roadways. This alternative would not achieve the development potential of the SLVSP and would therefore not be consistent with the SLVSP development goals for the South Livermore Valley. Therefore, Alternative 1 would not support uses that are consistent with the City's General Plan, SLVSP, or current zoning and impacts to population and housing would be less than significant, similar to the proposed project.

Alternative 1 would not result in construction activities along the alignment and would therefore eliminate the potential for emissions of criteria pollutants and greenhouse gases (GHG) associated with construction, resulting in reduced impacts related to air quality and GHG emissions as compared to the proposed project. Similarly, Alternative 1 would not require energy to power construction equipment or worker vehicles, resulting in reduced impacts to energy as compared to the proposed project. Alternative 1 would result in no construction noise or groundborne vibration from construction equipment, resulting in reduced noise impacts as compared to the proposed

project. Alternative 1 would not require implementation of Mitigation Measure NOI-1 to reduce construction noise impacts. Impacts to air quality, energy, GHG emissions, and noise would be less than significant and reduced compared to the proposed project.

Because there would be no construction associated with Alternative 1 there would be no potential for accidental spills from construction vehicles and equipment, and there would be no need to excavate or transport paving materials and soils that could possibly be contaminated by vehicle-related pollution or asbestos containing materials. Therefore, impacts related to hazards and hazardous materials would be reduced as compared to the proposed project. Similarly, Alternative 1 would not need to temporarily close one lane of public roadway and the Class II bicycle lane during project construction, resulting in reduced impacts related to transportation as compared to the proposed project. Impacts to hazards and hazardous materials and transportation would be less than significant and reduced compared to the proposed project.

Alternative 1 would not require ground disturbance along the project alignment, resulting in no impacts to biological resources, cultural resources, tribal cultural resources, and geology and soils. With no ground disturbance there would be no potential for disturbance of unanticipated resources, such as archeological, paleontological, or tribal cultural resources. Alternative 1 would not require implementation of Mitigation Measures CR-1, GEO-1, and TCR-1 to reduce impacts related to the unanticipated discovery of archaeological, paleontological, and tribal cultural resources. Impacts to biological resources, cultural resources, geology and soils, and tribal cultural resources would be less than significant and reduced compared to the proposed project.

6.2 Alternative 2: No Project/On-Site Wastewater Treatment

6.2.1 Description

Alternative 2 would not require a revision to the UGB language or installation of municipal sewer pipelines. Under this alternative, individual wineries and property owners would coordinate to construct shared small-scale WWTPs to treat and dispose of additional wastewater generated by the maximum development of each property under the General Plan and SLVSP. It is anticipated that approximately five or six such small-scale WWTPs would be required to treat anticipated wastewater associated with implementation of the General Plan and SLVSP along the entire project alignment. Treated wastewater could be used for crop irrigation. It is likely that biosolids would need to be trucked off site for disposal, and the WWTPs could include lift stations, screening through a rotary screen, and equalization with automated pH aeration. Individual wineries and property owners would select the placement and design of the small-scale WWTPs. This alternative would require approvals from the County of Alameda, which would act as the CEQA lead agency for small-scale WWTPs on parcels within the unincorporated county. However, Alternative 2 would not fulfill all project objectives to the same degree as the proposed project because it would not enhance the short-term economic viability of agriculture and viticulture in the area, as the construction and installation of individual WWTPs would likely have high individual costs and have uncertain timing due to the necessary coordination between landowners and permit approval process.

6.2.2 Impact Analysis

a. Hydrology and Water Quality

Alternative 2 would not result in the removal of existing roadbeds, installation of new sewer pipe, backfill of trenches, and patching pavement. However, land clearing, grading, excavation, and construction activities associated with the WWTPs would occur on individual properties. Construction of Alternative 2 would result in an overall increase in impervious surfaces due to the construction of multiple small-scale WWTPs and associated on-site facilities, unlike the proposed project. As such, the existing drainage pattern in the vicinity of the WWTPs would be altered under Alternative 2, and new localized drainage facilities may be needed to accommodate the increased amount of surface runoff. Construction of the WWTPs would require implementation of BMPs for site design and stormwater treatment along with full compliance with the Livermore Municipal Code, the goals, policies, and actions of the City's General Plan, the San Francisco Bay RWQCB's post-construction requirements for stormwater management, and mandatory CWA requirements (NPDES Construction General Permit and MS4 General Permit) if construction of a WWTP would disturb more than one acre of land, similar to the proposed project.

Alternative 2 would allow wastewater generated at adjacent residential and agricultural parcels to be treated with shared, small-scale WWTPs. The existing septic systems currently in use at these properties would be abandoned or removed, and the groundwater quality degradation associated with wastewater discharge to septic systems would be eliminated. Therefore, groundwater quality would be improved, as a result of septic system abandonment or removal, in the South Livermore Valley, similar to the proposed project. Overall, Alternative 2 would result in slightly increased impacts to hydrology and water quality as compared to the proposed project due to the increase in impervious surfaces and stormwater runoff. However, compliance with the Livermore Municipal Code, the goals, policies, and actions of the City's General Plan, the San Francisco Bay RWQCB's post-construction requirements for stormwater management, and potential mandatory CWA requirements would reduce impacts to less than significant, similar to the proposed project.

b. Utilities and Service Systems

Alternative 2 would result in an increased demand for electric power during operation and maintenance of the small-scale WWTPs. Alternative 2 would also result in an increase in impervious surfaces due to construction of the WWTPs, and new drainage facilities may be needed to accommodate the increased amount of surface runoff. However, similar to the proposed project, Alternative 2 would not increase the demand for natural gas facilities, or telecommunications infrastructure. Both Alternative 2 and the proposed project would result in a temporary increase in water supply needs for construction activities, such as dust suppression and concrete manufacturing. Alternative 2 would not increase the demand for wastewater treatment because this alternative would treat wastewater generated at adjacent residential and agricultural parcels with shared, small-scale WWTPs. Overall, impacts to utilities and service systems would be less than significant; however, impacts under Alternative 2 would be greater than the proposed project due to the incremental increase in utility service demands for operation and maintenance of the WWTPs. In addition, this alternative would not require increased treatment at the treatment plant.

c. Other CEQA Topics

Construction of small-scale WWTPs on private properties would not alter the existing pattern of land use in the project vicinity, introduce new land uses, divide connected neighborhoods, require the use of valuable mineral resources, result in mining activities, result in population growth, result in the construction of new residences or businesses, increase the demand for public services, or exacerbate the risk of wildfire. Therefore, impacts to land use and planning, mineral resources, population and housing, public services, recreation, and wildfire would be less than significant and similar to the proposed project.

The small-scale WWTPs would have increased impacts on aesthetics due to the addition of new aboveground structures associated with the WWTPs. The structures associated with the WWTPs could result in partially obstructed views of the Altamont Hills and the Diablo Mountain Range from small segments of designated Scenic Routes in Livermore, such as South Livermore Road and Tesla Road. Additionally, small-scale WWTPs in the South Livermore Valley would be contrary to the vision of the General Plan and SLVSP by introducing aboveground utilities infrastructure to primarily agricultural areas. However, the WWTP infrastructure would be approximately up to one story in height and would not block such views entirely. This impact would remain less than significant; however, this impact would be greater than that of the proposed project.

This alternative could potentially convert small portions of existing agricultural land to non-agricultural uses for the small WWTPs. No forestland or timberland exists on parcels adjacent to the project alignment; therefore, this alternative would not covert forestland or timberland to non-forest use. Overall, this alternative would result in greater impacts to agriculture and forestry resources.

Construction of the small-scale WWTPs would result in temporary air quality and GHG emissions associated with construction equipment, construction worker vehicles, and heavy trucks transporting materials and soil. However, air quality and GHG emissions associated with construction of the WWTPs would be similar to the air quality and GHG emissions that would result from project construction. These impacts would remain less than significant. Operation of the WWTPs would result in long-term air quality and GHG emissions, as well as unpleasant odors generated as a result of wastewater treatment processes. Additional review of potential air quality and GHG emissions would be required, as the operation of several small-scale WWTPs may be greater than the proposed project due to the increased efficiency of treating all wastewater from the development potential of parcels in the City General Plan and SLVSP areas at one facility, as proposed under the project. Depending on the precise location of the shared WWTPs and distance to sensitive receivers, which would require further environmental review under the County prior to approval, mitigation measures related to odor control in the vicinity of the small-scale WWTP facilities may be required.

Construction activity associated with the WWTPs would generate temporary noise in the project vicinity, exposing surrounding sensitive receivers to increased noise levels. However, noise associated with construction of the WWTPs would be similar to the noise that would result from project construction, and Alternative 2 would require implementation of Mitigation Measure NOI-1 to reduce construction noise at the sensitive receivers in the vicinity of the WWTPs to less than significant. Nonetheless, ongoing operation of the WWTPs would result in operational noise associated with wastewater treatment, unlike the proposed project. Operation of the WWTPs would also result in an increase in energy usage, which would be needed to power the WWTPs and associated facilities during wastewater treatment. Depending on the precise location of the shared

WWTPs and distance to sensitive receivers, which would require further environmental review under the County prior to approval, mitigation measures related to operational noise control in the vicinity of the small-scale WWTP facilities may be required. Therefore, impacts to energy and noise would be greater than the proposed project.

Construction of the small-scale WWTPs could result in ground disturbance in previously undisturbed areas. Therefore, impacts to biological resources, cultural resources, geology and soils, and tribal cultural resources would continue to require the implementation of the following Mitigation Measures to reduce impacts to less than significant:

- Mitigation Measure BIO-1: Nesting Bird Avoidance and Minimization Efforts;
- Mitigation Measure CR-1: Unanticipated Archaeological Resources;
- Mitigation Measure GEO-1: Paleontological Resources Monitoring and Mitigation; and
- Mitigation Measure TCR-1: Unanticipated Discovery of Tribal Cultural Resources.

Overall, impacts to biological resources, cultural resources, geology and soils, and tribal cultural resources would be greater under Alternative 2 than the proposed project.

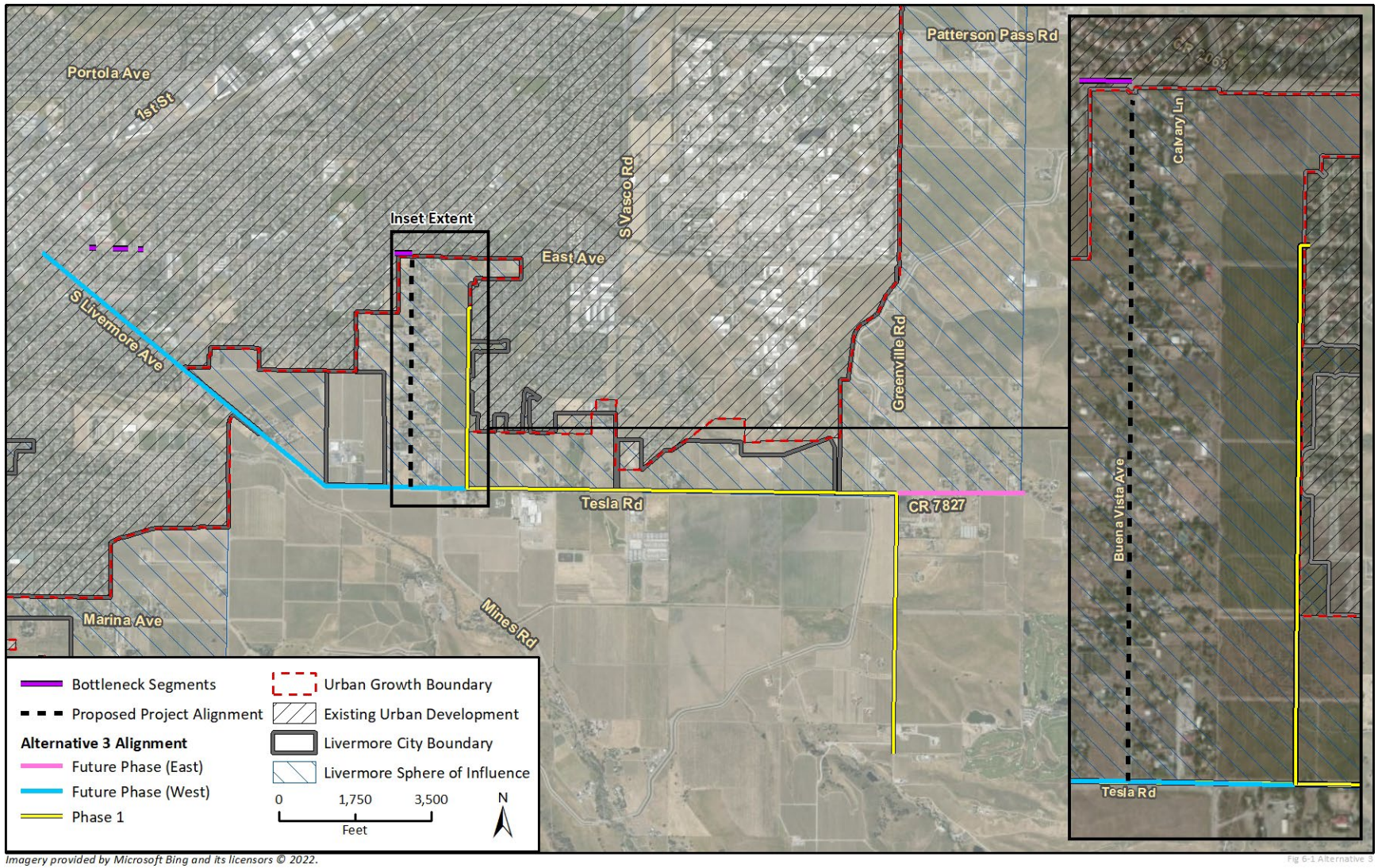
Construction of Alternative 2 would result in the increased potential for hazardous materials exposure and releases from historic pesticide uses on the adjacent parcels. Depending on the precise location of the shared WWTPs, which would require further environmental review under the County prior to approval, mitigation measures related to the release of hazardous materials during ground disturbance may be required. Alternative 2 would result in greater impacts related to both hazards and hazardous materials, and transportation than the proposed project, due to the need for biosolids to be regularly trucked off-site for disposal. The City has established designated truck routes, including I-580 and SR 84, which would be used by the operational truck trips of biosolids under Alternative 2. Operation of Alternative 2 would comply with federal, state, and local requirements regulating the transport of hazardous materials, and the number of trips added to local roadways by Alternative 2 would be minimal, as biosolid removal would not require daily trips to each of the small-scale WWTPs. While impacts to hazards and hazardous materials and transportation would be less than significant, they would be greater than the proposed project.

6.3 Alternative 3: Alternative Alignment

6.3.1 Description

Similar to the proposed project, Alternative 3 would involve pipeline upsizing associated with the Bottleneck Project and installation of new sewer pipelines along South Livermore Avenue, Tesla Road, and Greenville Road. Instead of the proposed 5,400-LF alignment along Buena Vista Avenue from East Avenue to Tesla Road, Alternative 3 would include 3,800 LF of pipeline within agricultural land located approximately 1,200 feet east of Buena Vista Avenue, to connect to an existing pipeline in Carnegie Loop. Carnegie Loop is located northwest of Bruno Canziani Neighborhood Park. The advantage of connecting to the existing pipeline in Carnegie Loop would be that the total length of new sewer pipeline would be 1,600 LF shorter than under the proposed project and would be returned to active agricultural use after construction. Figure 6-1 shows the location of the pipeline alignment under this alternative. This alternative would require the same change to the UGB language as the proposed project. However, Alternative 3 would not achieve all of the project objectives because it would not extend municipal sewer service to existing residences along Buena Vista Avenue or reduce groundwater quality issues.

Figure 6-1 Alternative 3 Alignment



6.3.2 Impact Analysis

a. Hydrology and Water Quality

Similar to the proposed project, Alternative 3 would require removal of the existing roadbed, grading and excavation, installation of the new sewer pipe, backfill of the trench, and repaving on South Livermore Avenue, Tesla Road, Greenville Road, and East Avenue. No construction along Buena Vista Avenue would occur. Additionally, both the proposed project and Alternative 3 would require implementation of BMPs for site design and stormwater treatment along with full compliance with the Livermore Municipal Code, the goals, policies, and actions of the City's General Plan, the San Francisco Bay RWQCB's post-construction requirements for stormwater management, and mandatory CWA requirements (NPDES Construction General Permit and MS4 General Permit). The alignment associated with Alternative 3 would be 1,600 LF shorter than under the proposed project; however, 3,800 LF of sewer pipeline would be constructed within active agricultural land located east of Buena Vista Avenue. With adherence to the requirements detailed in Section 4.1, *Hydrology and Water Quality*, Alternative 3 would result in a similar potential for temporary impacts to water quality due to runoff leaving the project alignment from grading and excavation activities or accidental leaking of fuel, oil, and lubricants from heavy construction equipment as compared to the proposed project.

Unlike the proposed project, Alternative 3 would not allow residential parcels on Buena Vista Avenue to connect to the City's wastewater system, and wastewater would continue to be discharged to on-site septic systems. Therefore, Alternative 3 would result in reduced improvements to groundwater due to the removal of septic systems as compared to the proposed project. Overall, Alternative 3 would result in less than significant impacts to hydrology and water quality; however, Alternative 3 would result in increased impacts to hydrology and water quality as compared to the proposed project.

b. Utilities and Service Systems

Alternative 3 would not result in an unanticipated demand for water at the existing uses in the project vicinity, similar to the proposed project. Additionally, Alternative 3 would continue to allow runoff from the existing paved impervious surfaces along South Livermore Avenue, Tesla Road, and Greenville Road after construction, and the overall amount of surface runoff would not increase, similar to the proposed project. Since construction of Alternative 3 would not result in the addition of impervious surfaces within the agricultural land, no new drainage facilities would be required to accommodate an increased amount of surface runoff, similar to the proposed project. Also similar to the proposed project, Alternative 3 would not require expanded electric power, natural gas facilities, or telecommunications infrastructure.

Both Alternative 3 would result in a temporary increase in water supply needs for construction activities, such as dust suppression and concrete manufacturing, similar to the proposed project. However, implementation of Alternative 3 may require more dust suppression as compared to the proposed project due to proposed construction within active agricultural land. Alternative 3 would increase the demand for wastewater treatment from expanded residential and commercial use of the City's wastewater system along South Livermore Avenue, Tesla Road, and Greenville Road, similar to the proposed project. Untreated organic flows from adjacent wineries could overload the treatment processes at the LWRP, as the same wineries would be able to connect to the proposed sewer extension as under the proposed project. As with the proposed project, Livermore Municipal

Code 13.32.060 prohibits discharge into the City's system that would interfere with the performance or operation of the LWRP. Therefore, pre-treatment of the organic flows from wineries that apply for a sewer connection to the proposed system may be required upon City approval of future connections to the proposed alignment to reduce the potential for the increased sewer flows to overload the treatment processes at the LWRP. However, Alternative 3 would result in a lesser increase in the demand for wastewater treatment, as residences along Buena Vista Avenue would not be able to connect to the City's wastewater system under this alternative. Overall, impacts to utilities and service systems would be less than significant and reduced in comparison to the proposed project due to the reduced increase in demand for wastewater treatment.

c. Other CEQA Topics

Similar to the proposed project, Alternative 3 would require construction along existing roadways, which would result in the closure of one lane of roadway and the Class II bicycle lane at any given time. However, Alternative 3 would not require the closure of travel lanes along Buena Vista Avenue. Therefore, transportation impacts would be less than significant and slightly reduced as compared to the proposed project.

Construction under Alternative 3 would temporarily increase the use and transport of hazardous materials in the project area through the operation of vehicles and equipment and would require the excavation and transport of paving materials and soils that could possibly be contaminated by vehicle-generated pollution, as well as agricultural pesticides, to a slightly greater extent than the proposed project. Construction of Alternative 2 would also result in the increased potential for hazardous materials exposure and releases from historic pesticide uses along the portion of the proposed alignment that would be located within active agricultural land. Mitigation measures related to the release of hazardous materials during ground disturbance may be required. Alternative 3 would result in greater impacts to hazards and hazardous materials than the proposed project.

Similar to the proposed project, Alternative 3 would not result in aboveground improvements, alter the existing pattern of land use in the project vicinity, introduce new land uses, divide connected neighborhoods, require the use of valuable mineral resources, result in mining activities, directly result in population growth, directly result in the construction of new residences or businesses, increase the demand for public services, increase the use or need for expanded recreational facilities, or exacerbate the risk of wildfire. Therefore, impacts to aesthetics, land use and planning, mineral resources, population and housing, public services, recreation, and wildfire would be less than significant and similar to the proposed project.

Soils along the proposed alignment within agricultural land associated with Alternative 3 consist of Livermore very gravelly course sandy loam, which is considered farmland of statewide importance, as well as Pleasanton gravelly loam and Rincon loam, both of which are considered prime farmland if irrigated (Natural Resources Conservation Service 2022). Construction of Alternative 3 would not result in the permanent conversion of farmland to non-agricultural use because existing agricultural uses would continue after construction is complete; therefore, impacts would be less than significant. However, construction of the pipeline within agricultural land would result in the temporary disruption of existing agricultural uses during project construction, which would result in slightly greater impacts to agricultural resources as compared to the proposed project.

Alternative 3 would result in disturbance of land at greater depths than what has historically occurred through active agriculture. Therefore, construction of Alternative 3 would result in a greater potential for impacts to biological resources, cultural resources, geology and soils, and tribal

cultural resources that would require the same mitigation measures as the proposed project (refer to Appendix IS) to reduce impacts to less than significant levels:

- Mitigation Measure BIO-1: Nesting Bird Avoidance and Minimization Efforts;
- Mitigation Measure CR-1: Unanticipated Archaeological Resources;
- Mitigation Measure GEO-1: Paleontological Resources Monitoring and Mitigation; and
- Mitigation Measure TCR-1: Unanticipated Discovery of Tribal Cultural Resources.

Overall, Alternative 3 would have greater potential impacts to biological resources, cultural resources, geology and soils, and tribal cultural resources than the proposed project.

The 1,600-LF reduction in total pipeline length under Alternative 3 would reduce both the construction footprint and the total days of construction. Therefore, impacts to air quality, energy, GHG emissions, and noise, would be slightly reduced as compared to the proposed project. Mitigation Measure NOI-1 would still be required to reduce construction noise at the sensitive residential receivers along East Avenue and South Livermore Avenue, as well as additional sensitive residential receivers on Carnegie Loop, Lawson Circle, and Hall Circle, which are located adjacent to the proposed Alternative 3 alignment within the agricultural land (Figure 6-1). Impacts related to air quality, energy, GHG emissions, and noise under Alternative 3 would remain less than significant and reduced as compared to the proposed project.

6.4 Alternatives Considered but Rejected

One alternative considered included changing the location of the existing UGB boundary to allow for urban development, such as extended sewer service, to occur within a larger area in the southeast portion of the City. This change would allow for construction of the extended sewer pipeline to occur within the UGB boundary without requiring a change to the UGB language, which would require voter approval. However, a change in the location of the existing UGB boundary would also require voter approval, and this alternative would ultimately result in the same construction as the proposed project. Therefore, this alternative would not avoid the potential impacts anticipated under the proposed project. Because this alternative involve similar voter requirements, construction, and impacts as the proposed project, it was rejected as an alternative to the project.

6.5 Environmentally Superior Alternative

Table 6-1 indicates whether each alternative's environmental impact is greater than, less than, or similar to that of the proposed project for each of the issue areas studied. Based on the alternatives analysis provided above, Alternative 1 would be the environmentally superior alternative. However, pursuant to *CEQA Guidelines* Section 15126.6(e)(2), if the No Project Alternative is determined to be environmentally superior, the EIR shall also identify an environmentally superior alternative among the other alternatives. Therefore, Alternative 3 would be the environmental superior alternative, as it reduces impacts to air quality, energy, GHG emissions, noise, and utilities and service systems by shortening the linear footage of new sewer pipeline, compared to the proposed project. Overall, in comparison to the proposed project, Alternative 3 would reduce impacts to five environmental issue areas and increase impacts to six environmental issue areas, and would result in a similar level of impact to nine environmental issue areas.

Alternative 1 (No Project/No Construction Alternative*)* assumes that the UGB language revision is not approved by a majority of voters, and that the proposed pipeline and upsizing of existing pipeline along East Avenue are not constructed. Under this alternative, potential water quality impacts associated with construction and upsizing of the pipelines would not occur. Similarly, potential impacts to utilities associated with the additional demand for water from temporary construction activities and development of adjacent parcels would not occur. However, Alternative 1 would result in an overall increase in impacts to hydrology and water quality due to water quality issues associated with the degradation of groundwater from continued discharge to residential and commercial on-site septic systems. However, as no construction would occur under this alternative, the mitigation measures associated reducing construction noise, avoiding and minimizing impacts to nesting birds, and monitoring for unanticipated archeological, paleontological, and tribal cultural resources would not be required. Alternative 1 would not fulfill the Project Objectives because the existing conditions would not improve groundwater quality in the South Livermore Valley, existing wineries and residences would be unable to realize their development potential under the General Plan and SLVSP, and economic viability of agriculture and viticulture in the region would not be enhanced.

Alternative 2 (No Project/On-Site Wastewater Treatment*)* would not install new municipal sewer pipelines and would not require a revision to the UGB language. Instead, individual wineries and property owners would coordinate to construct shared small-scale WWTPs on individual properties to treat and dispose of additional wastewater generated by the maximum development potential of each property under the General Plan and SLVSP. Construction of the WWTPs would result in an increase in impervious surfaces, which could alter the existing drainage pattern in the vicinity of the facilities. As a result, new drainage facilities may be needed to accommodate the increased amount of surface runoff. Alternative 2 would also have an increased demand for electric power during operation and maintenance of the small-scale WWTPs. Therefore, this alternative is expected to have increased impacts to hydrology and water quality and utilities and service systems as compared to the proposed project. In addition, Alternative 2 would have increased impacts to aesthetics due to the addition of new aboveground structures that could result in result in obstructed views of scenic vistas from South Livermore Road and Tesla Road, which are designated Scenic Routes. Alternative 2 would also result in increased impacts to noise, air quality, GHG, and energy associated with the ongoing operation of the WWTPs. Similarly, ongoing operation of the WWTPs would require frequent truck trips for off-site disposal of biosolids, resulting in an increase in impacts to both hazards and hazardous materials and transportation as compared to the proposed project. Alternative 2 would also have increased hazards and hazardous materials impacts during construction, due to the potential release of historic agricultural pesticides. As with the proposed project, the same mitigation measures during the construction period for noise, biological resources, cultural resources, geology and soils, and tribal cultural resources would be required. Additional mitigation measures related to odor control and operational noise control may be required during operation of the WWTPs under this alternative. Alternative 2 would not fulfill all Project Objectives because it would not enhance the short-term economic viability of agriculture and viticulture in the area, as the construction and installation of individual WWTPs would likely have high individual costs and have uncertain timing due to the necessary coordination between landowners and permit approval process.

Alternative 3 (Alternative Alignment*)* would involve the construction of the same segments of new and upsized pipeline with the exception of the alignment on Buena Vista Avenue. Under this alternative, 3,800 LF of pipeline would be constructed within agricultural land located approximately 1,200 feet east of Buena Vista Avenue instead of the proposed 5,400-LF alignment along Buena

Vista Avenue. As a result, construction of the pipeline within agricultural land would result in the temporary disruption of existing agricultural uses in soils considered farmland of statewide importance and prime farmland if irrigated during project construction, which would have greater impacts to agriculture resources as compared to the proposed project. In addition, Alternative 3 would not allow residential parcels on Buena Vista Avenue to connect to the City's wastewater system which would result in increased impacts to hydrology and water quality due to ongoing groundwater quality degradation associated with residential discharge to on-site septic systems. However, Alternative 3 would result in reduced impacts to utilities and service systems due to a lesser increase in the demand for wastewater treatment (pretreatment of winery organic flows may still be required by the City to maintain the performance), as residences along Buena Vista Avenue would not be able to connect to the City's wastewater system. As with the proposed project, the same mitigation measures during the construction period for noise, biological resources, cultural resources, geology and soils, and tribal cultural resources would be required. Alternative 3 would not fulfill all Project Objectives because it would not extend municipal sewer service to existing residences along Buena Vista Avenue and reduce groundwater quality issues.

Table 6-1 Impact Comparison of Alternatives

Issue	Proposed Project Impact Classification	Alternative 1: No Project/No Construction	Alternative 2: No Project/On-Site Wastewater Treatment	Alternative 3: Alternative Alignment
Aesthetics	No impact	=	-	=
Agriculture and Forestry Services	No impact	=	-	-
Air Quality	Less than significant	+	-	+
Biological Resources	Less than significant with mitigation	+	-	-
Cultural Resources	Less than significant with mitigation	+	-	-
Energy	Less than significant	+	-	+
Geology and Soils	Less than significant with mitigation	+	-	-
Greenhouse Gas Emissions	Less than significant	+	-	+
Hazards and Hazardous Materials	Less than significant	+	-	-
Hydrology and Water Quality	Less than significant	-	-	-
Land Use and Planning	No impact	=	=	=
Mineral Resources	No impact	=	=	=
Noise	Less than significant with mitigation	+	-	+
Population and Housing	Less than significant	=	=	=
Public Services	No impact	=	=	=
Recreation	No impact	=	=	=
Transportation	Less than significant	+	-	+
Tribal Cultural Resources	Less than significant with mitigation	+	-	-
Utilities and Service Systems	Less than significant	+	-	+
Wildfire	No impact	=	=	=
Overall Impact Comparison		**11 +** **8 =** **1 -**	**0 +** **7 =** **13 -**	**6 +** **7 =** **7 -**

+ Superior to the proposed project (reduced level of impact)
- Inferior to the proposed project (increased level of impact)
= Similar level of impact to the proposed project

7 References

7.1 Bibliography

Executive Summary

No references in this section.

Section 1, Introduction

No references in this section.

Section 2, Project Description

Alameda, County of. 2003. South Livermore Valley Area Plan. https://www.acgov.org/cda/planning/generalplans/documents/SounthLivermoreAreaPlancombined.pdf (accessed March 2022).

_____. 2021. Unincorporated Alameda County Public Access Map. https://acpwa.maps.arcgis.com/apps/View/index.html?appid=4a648cb409d744b8a4f645e6e35fe773 (accessed January 2022).

Livermore, City of. 2015. General Plan 2003-2025. https://www.cityoflivermore.net/government/community-development/planning/2003-2025-general-plan (accessed January 2022).

_____. 2017. Sewer Master Plan. December 2017. https://www.cityoflivermore.net/home/showpublisheddocument/7540/637744925442970000 (accessed January 2022).

Section 3, Environmental Setting

Alameda, County of. 2021. Unincorporated Alameda County Public Access Map. https://acpwa.maps.arcgis.com/apps/View/index.html?appid=4a648cb409d744b8a4f645e6e35fe773 (accessed January 2022).

California Department of Finance. 2021. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2021 with 2010 Census Benchmark. 2021. https://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/ (accessed January 2022).

City of Livermore Community Development Department. 2021. Summary of Major Development Projects. August 2021. https://www.cityoflivermore.net/home/showpublisheddocument/7762/637655916770030000 (accessed January 2022).

County of Alameda Community Development Agency. 2021. “Current Development Projects”. https://www.acgov.org/cda/planning/landuseprojects/currentprojects.htm (accessed January 2022).

Livermore, City of. 2015. General Plan 2003-2025. https://www.cityoflivermore.net/government/community-development/planning/2003-2025-general-plan (accessed January 2022).

U.S. Climate Data. 2022. "Climate Livermore – California." https://www.usclimatedata.com/climate/berkeley/california/united-states/usca0087 (accessed January 2022).

Section 4, Environmental Impact Analysis

No references in this section.

Section 4.1, Hydrology and Water Quality

Alameda County. 2000. East County Area Plan. A Portion of the Alameda County General Plan. https://www.acgov.org/cda/planning/generalplans/documents/EastCountyAreaPlancombined.pdf (accessed December 2021).

_____. 2003. South Livermore Valley Area Plan. https://www.acgov.org/cda/planning/generalplans/documents/SounthLivermoreAreaPlancombined.pdf (accessed March 2022).

_____. 2022. General Plan, Specific Plans & Ordinances. https://www.acgov.org/cda/planning/generalplans/index.htm (accessed March 2022).

California Department of Conservation. 2021. California Tsunami Maps and Data. *Alameda County Tsunami Hazard Areas.* https://www.conservation.ca.gov/cgs/tsunami/maps/alameda (accessed January 2022).

California Department of Water Resources (DWR). 2006. California Groundwater Bulletin 118. *San Francisco Hydrologic Region, Livermore Valley Groundwater Basin.* https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/2_010_LivermoreValley.pdf (accessed December 2021).

_____. 2015. California's Groundwater Update 2013. *Chapter 4 – San Francisco Bay Hydrologic Region Groundwater Update.* Available at: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Data-and-Tools/Files/Statewide-Reports/California-Groundwater-Update-2013/California-Groundwater-Update-2013---Chapter-4---San-Francisco-Bay.pdf (accessed November 2021).

Federal Emergency Management Agency (FEMA). 2021. FEMA Flood Map Service Center. https://msc.fema.gov/portal/search?AddressQuery=south%20livermore%20avenue%2C%20livermore%20CA#searchresultsanchor (accessed January 2022).

Groundwater Exchange. 2021. Livermore Valley. https://groundwaterexchange.org/basin/livermore-valley/ (accessed December 2021).

Livermore, City of. 1997. South Livermore Valley Specific Plan. Adopted November 17, 1997. Amended February 2004. https://www.cityoflivermore.net/government/community-development/planning (accessed February 2022).

_____. 2015. General Plan 2003-2025. https://www.cityoflivermore.net/government/community-development/planning/2003-2025-general-plan (accessed December 2021).

San Francisco Bay Regional Water Quality Control Board (RWQCB). 2010. Surface Water Body Beneficial Use Documentation Tables. https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/amendments/WaterBodies/Documt%20tables%20FINAL%20new%20cover%20BOOKMARKS%204-6-2012.pdf (accessed February 2022).

_____. 2019. Water Quality Control Plan (Basin Plan). San Francisco Bay Basin (Region 2). https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/docs/ADA_compliant/BP_all_chapters.pdf (accessed December 2021).

State Water Resources Control Board (SWRCB). 2018. Clean Water Act Section 303(d) List and 305(b) Report. https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html (accessed December 2021).

United States Army Corps of Engineers (USACE). 1987. Wetlands Delineation Manual. January 1987.

United States Geological Survey (USGS). 2021. The National Map. Advanced Viewer. https://apps.nationalmap.gov/viewer/ (accessed December 2021).

University of California (UC) Davis, Department of Environmental Science and Policy. 2021a. California Water Indicators Porter. Arroyo Mocho. https://indicators.ucdavis.edu/cwip/huc/1805000403 (accessed December 2021).

_____. 2021b. California Water Indicators Porter. Arroyo Las Positas. https://indicators.ucdavis.edu/cwip/huc/1805000402 (accessed December 2021).

U.S. Climate Data. 2021. Climate. Livermore – California. https://www.usclimatedata.com/climate/livermore/california/united-states/usca0618 (accessed December 2021).

Zone 7 Water Agency. 2016. Alternative Groundwater Sustainability Plan for the Livermore Valley Groundwater Basin. https://www.zone7water.com/sites/main/files/file-attachments/alt_gw_sustainability_plan.pdf?1619903254 (accessed February 2022).

_____. 2021. Annual Report for the Sustainable Groundwater Management Program - 2020 Water Year. *Livermore Valley Groundwater Basin*. https://www.zone7water.com/sites/main/files/file-attachments/gsp2020annrptfinal.pdf?1619988363 (accessed February 2022).

Section 4.2, Utilities and Service Systems

Alameda, County of. 2003. South Livermore Valley Area Plan. https://www.acgov.org/cda/planning/generalplans/documents/SounthLivermoreAreaPlancombined.pdf (accessed March 2022).

_____. 2017. Alameda County Clean Water Program. https://www.cleanwaterprogram.org/about-us.html (accessed November 2021).

_____. 2022. General Plan, Specific Plans & Ordinances. https://www.acgov.org/cda/planning/generalplans/index.htm (accessed March 2022).

California Department of Resources Recycling and Recovery (CalRecycle). 2021a. Jurisdiction Disposal and Alternative Daily Cover (ADC) Tons by Facility. https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility (accessed November 2021).

_____. 2021b. Solid Waste Facilities, Sites and Operations. https://www.calrecycle.ca.gov/SWFacilities/ (accessed November 2021).

California Water Service Company (Cal Water). 2021. 2020 Urban Water Management Plan. https://www.calwater.com/docs/uwmp2020/LIV_2020_UWMP_FINAL.pdf (Accessed December 2021).

HydroScience. 2022. *Sewer System Extension Hydraulic Analysis.* Livermore, CA. January 31, 2022.

Livermore, City of. 1997. South Livermore Valley Specific Plan (SLVSP). Amended 2004. https://www.cityoflivermore.net/home/showpublisheddocument/5551/637230313456300000 (accessed October 2021).

_____. 2012. Livermore Water Reclamation Plant Master Plan Update. https://www.cityoflivermore.net/home/showpublisheddocument/7538/637744925322970000 (accessed February 2022).

_____. 2015. General Plan 2003-2025. https://www.cityoflivermore.net/government/community-development/planning/2003-2025-general-plan (accessed October 2021).

_____. 2017. Sewer Master Plan. December 2017. https://www.cityoflivermore.net/home/showpublisheddocument/7540/637744925442970000 (accessed January 2022).

_____. 2021a. Livermore Water Reclamation Plant. https://www.cityoflivermore.net/government/public-works/water-resources/wastewater-service/livermore-water-reclamation-plant (accessed November 2021).

_____. 2021b. Livermore Stormwater Management. https://www.cityoflivermore.net/government/public-works/water-resources/stormwater-management (accessed February 2022).

_____. 2021c. Preliminary Summary: Sewer Expansion to South Livermore Plan Area. November 2021.

_____. 2022. Environmental Services. https://www.cityoflivermore.net/government/public-works/environmental-services (accessed January 2022).

Pacific Gas and Electric Company (PG&E). 2022. Company profile. https://www.pge.com/en_US/about-pge/company-information/profile/profile.page (accessed February 2022).

San Francisco Bay Area Integrated Regional Water Management Plan (IRWMP). 2019 Bay Area Integrated Regional Water Management Plan. https://www.ccwater.com/DocumentCenter/View/8741/Bay-Area-IRWM-Plan-2019-Update-PDF (accessed February 2022).

Zone 7 Water Agency. 2021. 2020 Urban Water Management Plan. https://www.zone7water.com/sites/main/files/file-attachments/0_final_2020_uwmp.pdf?1624903044 (accessed February 2022).

Section 5, Other CEQA Related Discussions

Association of Bay Area Governments. 2021. Plan Bay Area. http://projections.planbayarea.org/ (accessed November 2021).

California Department of Finance. 2021. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2021 with 2010 Census Benchmark. 2021. https://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/ (accessed January 2022).

Section 6, Alternatives

Natural Resources Conservation Service. 2022. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (accessed February 2022).

7.2 List of Preparers

This EIR was prepared by the City of Livermore, with the assistance of Rincon Consultants, Inc. Consultant staff involved in the preparation of the EIR are listed below.

RINCON CONSULTANTS, INC.

Abe Leider, AICP CEP, Principal
Darcy Kremin, AICP, Director
Aileen Mahoney, Project Manager
Taylor Freeman, Associate Environmental Planner
Destiny Timms, Associate Environmental Planner
Nicholas Carter, Associate Environmental Planner
Audrey Brown, GIS Specialist
Gina Gerlich, GIS Specialist
Luis Apolinar, Publishing Specialist

This page intentionally left blank.