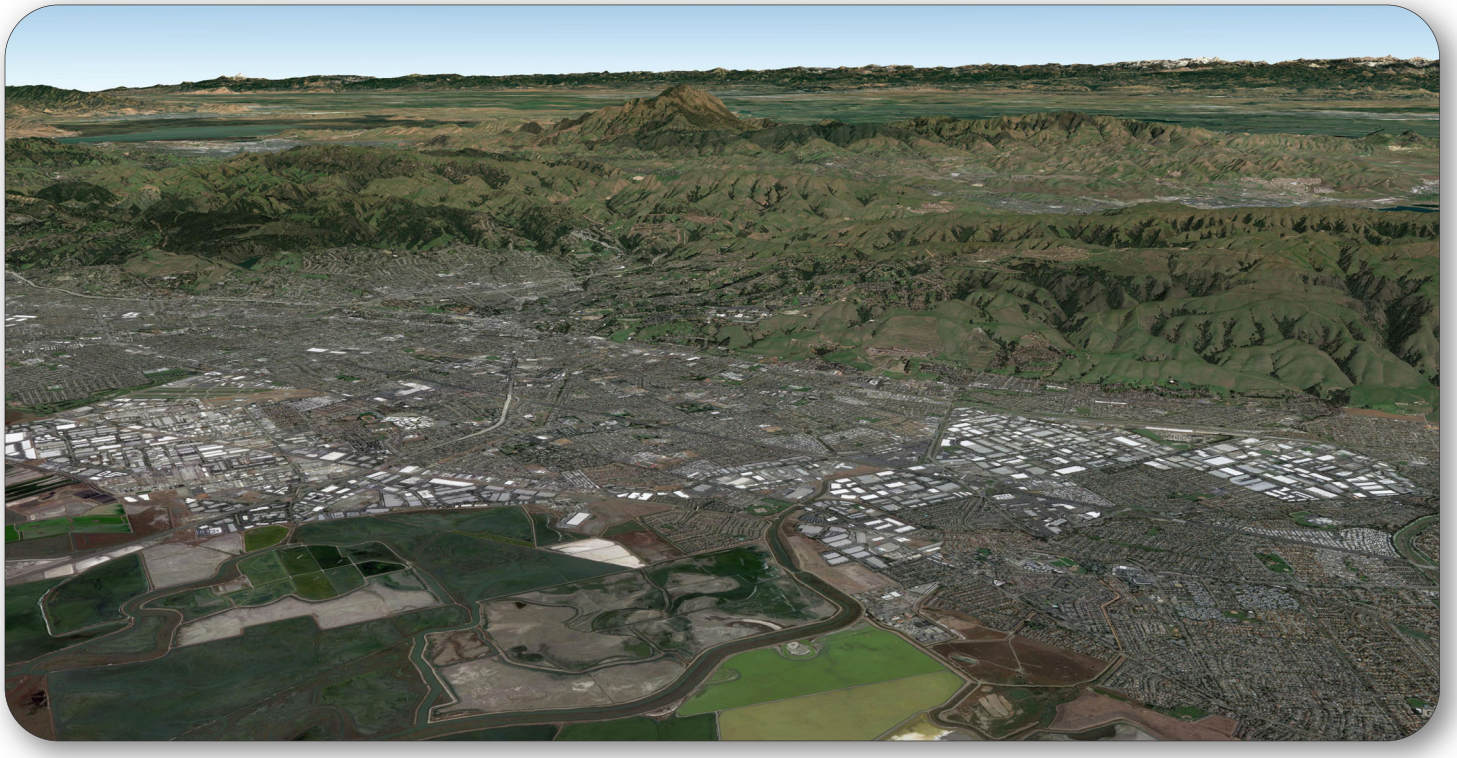

INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

CITY OF HAYWARD
SEWER AND WATER PIPELINE IMPROVEMENTS PROJECT

JUNE 2021

PREPARED FOR:

City of Hayward
Public Works & Utilities Department
777 B Street
Hayward, CA 94541

PREPARED BY:

Analytical Environmental Services
1801 7th Street, Suite 100
Sacramento, CA 95811
(916) 447-3479
www.analyticalcorp.com

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Appendix B: Sewer and Water Preliminary Design Reports
Appendix C: Geotechnical Desktop Study
Appendix D: Air Quality and GHG Model Runs
Appendix E. Biological Memorandum
Appendix F: Cultural Resources Study

1 INTRODUCTION

1.1 PROJECT SUMMARY/ENVIRONMENTAL CHECKLIST FORM

Project Title:	City of Hayward Sewer and Water Pipeline Improvements Project
Lead Agency Name and Address:	City of Hayward Public Works & Utilities Department 777 B Street Hayward, CA 94541
Contact Person and Phone Number:	Sammy Lo, P.E., Associate Civil Engineer (510) 583-4768
Project Location:	Pipeline segment improvements would take place across 44 distinct locations across the City of Hayward, in Alameda County, California.
Project Sponsor's Name and Address:	City of Hayward Public Works & Utilities Department 777 B Street Hayward, CA 94541
General Plan Designation:	Various
Zoning:	Various
Description of the Project:	The Proposed Project involves replacing and improving approximately 5.2 miles of water mains, 3.7 miles of sewer line segments, and related appurtenances at 44 locations throughout the City of Hayward. A detailed description of the Proposed Project is included in **Section 2.4**.
Existing and Surrounding Land Uses:	The Project Area consists of 44 distinct pipeline improvement locations throughout the City and is within City limits. The 44 improvement locations fall under various City zoning and land use classifications. The majority of the improvement locations are located within paved rights-of-ways, surrounded by urban and commercial land uses.
Other Public Agencies Whose Approval may be Required:	San Francisco Bay Regional Water Quality Control Board Bay Area Air Quality Management District

Consultation with California Native American Tribes	On April 2, 2021, the City sent a letter to the Ione Band of Miwok Indians providing detailed information on the Proposed Project and describing the Assembly Bill (AB) 52 consultation process. The letter requested that the Tribe notify the City within 30 days if they would like to engage in formal consultation regarding possible significant effects that the Proposed Project may have on tribal cultural resources. A response letter from the Ione Band of Miwok Indians was not received. Therefore, the requirements of Public Resources Code (PRC) § 21080.3.1 have been satisfied. Refer to the discussion in **Section 3.6** regarding outreach to Native American Tribes identified by the Native American Heritage Commission.

1.2 PURPOSE OF STUDY

The City of Hayward (Lead Agency) has prepared this Initial Study (IS) for the City of Hayward Sewer and Water Line Improvement Project (Proposed Project) in accordance with the California Environmental Quality Act (CEQA) of 1970 (as amended), codified in California PRC § 21000 *et seq*., and the CEQA *Guidelines* in the Code of Regulations, Title 14, Division 6, Chapter 3. Pursuant to these regulations, this IS is intended to inform City decision-makers, responsible agencies, interested parties, and the general public of the Proposed Project and its potential environmental effects. This IS is also intended to provide the CEQA-required environmental documents for all city, local, and state approvals or permits that might be required to implement the Proposed Project. This IS supports a Mitigated Negative Declaration (MND) as defined under CEQA *Guidelines* § 15070.

1.3 DOCUMENTS INCORPORATED BY REFERENCE

On July 1, 2014, the City of Hayward approved the Hayward 2040 General Plan and certified the Final General Plan Environmental Impact Report (EIR). The General Plan EIR is a program-level EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations [CCR], Sections 15000 et seq.). The General Plan and EIR analyzed full implementation of the City of Hayward General Plan and identified measures to mitigate the significant adverse project and cumulative impacts associated with the General Plan. Pursuant to CEQA Guidelines Section 15150(a), the City of Hayward General Plan and EIR are incorporated by reference. Both documents are available at the City of Hayward, 777 B Street, Hayward, CA 94541. The impact discussions for each section of this IS/MND are in part based on information in the City of Hayward General Plan and EIR.

1.4 ORGANIZATION OF THE INITIAL STUDY

This document is organized into the following sections:

Section 1.0 – Introduction: Describes the purpose, contents, and organization of the document and provides a project summary. Includes the significance determination, which identifies the determination of whether impacts associated with development of the Proposed Project are significant, and what, if any, additional environmental documentation may be required.

Section 2.0 – Project Description: Includes a detailed description of the Proposed Project.

Section 3.0 – Environmental Impact Analysis: Contains the Environmental Checklist from CEQA *Guidelines* Appendix G with a discussion of potential environmental effects associated with the Proposed Project. Mitigation measures, if necessary, are noted following each impact discussion.

Section 4.0 – List of Preparers

Section 5.0 – References

Appendices – Contains information to supplement sections within the IS.

1.5 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by the Proposed Project, involving at least one impact requiring mitigation to bring it to a less-than-significant level. Impacts to these resources are evaluated using the checklist included in **Section 3.0**. The Proposed Project was determined to have a less-than-significant impact or no impact without mitigation on unchecked resource areas.

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

1.6 CEQA ENVIRONMENTAL DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature **Date** 8/10/21

2 PROJECT DESCRIPTION

2.1 PROJECT SUMMARY

The Proposed Project involves replacing and improving approximately 5.2 miles of water mains, 3.7 miles of sewer line segments, and related appurtenances at 44 locations throughout the City of Hayward. The Proposed Project is part of the City Council Adopted Strategic Roadmap to improve utilities infrastructure and selected line upgrades are based on recommendations from the City's 2014 Water System Master Plan and 2015 Sewer Collection System Master Plan. The Project location and components are described in more detail below.

2.2 PROJECT LOCATION AND SETTING

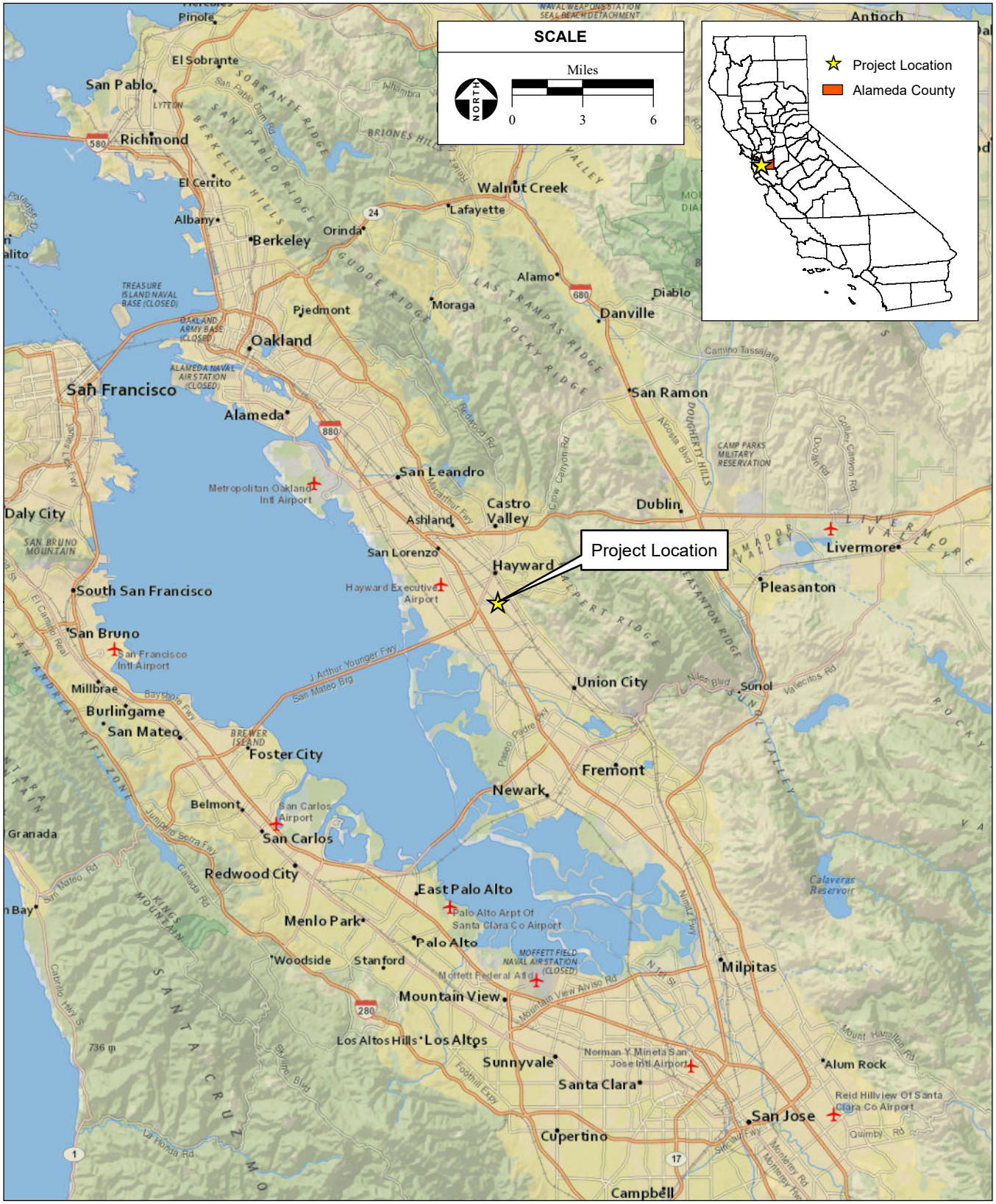
Pipeline segment improvements would take place across 44 distinct locations across the City of Hayward (City), in Alameda County (County), California (Project Area). The general Project Area and individual pipeline segment improvement locations are displayed on **Figures 2-1**, **2-2**, and **2-3**. Land uses surrounding each pipeline segment vary, with the majority of improvements taking place within commercial and residential areas. Pipeline improvements would occur primarily within paved and disturbed right of ways. However, some locations occur within unpaved areas such as residential backyards, parks, or utility easements. A detailed description, including location information, for each water and sewer line improvement location can be found in **Table 2-1** below. **Appendix A** includes map book sheets, showing the precise location and route for each pipeline segment to be improved. The pipeline location numbers identified in **Table 2-1** and shown on **Figure 2-3** correspond to the map book sheet numbers included in **Appendix A**.

2.3 PROJECT BACKGROUND

2.3.1 CITY OF HAYWARD UTILITY INFRASTRUCTURE IMPROVEMENTS

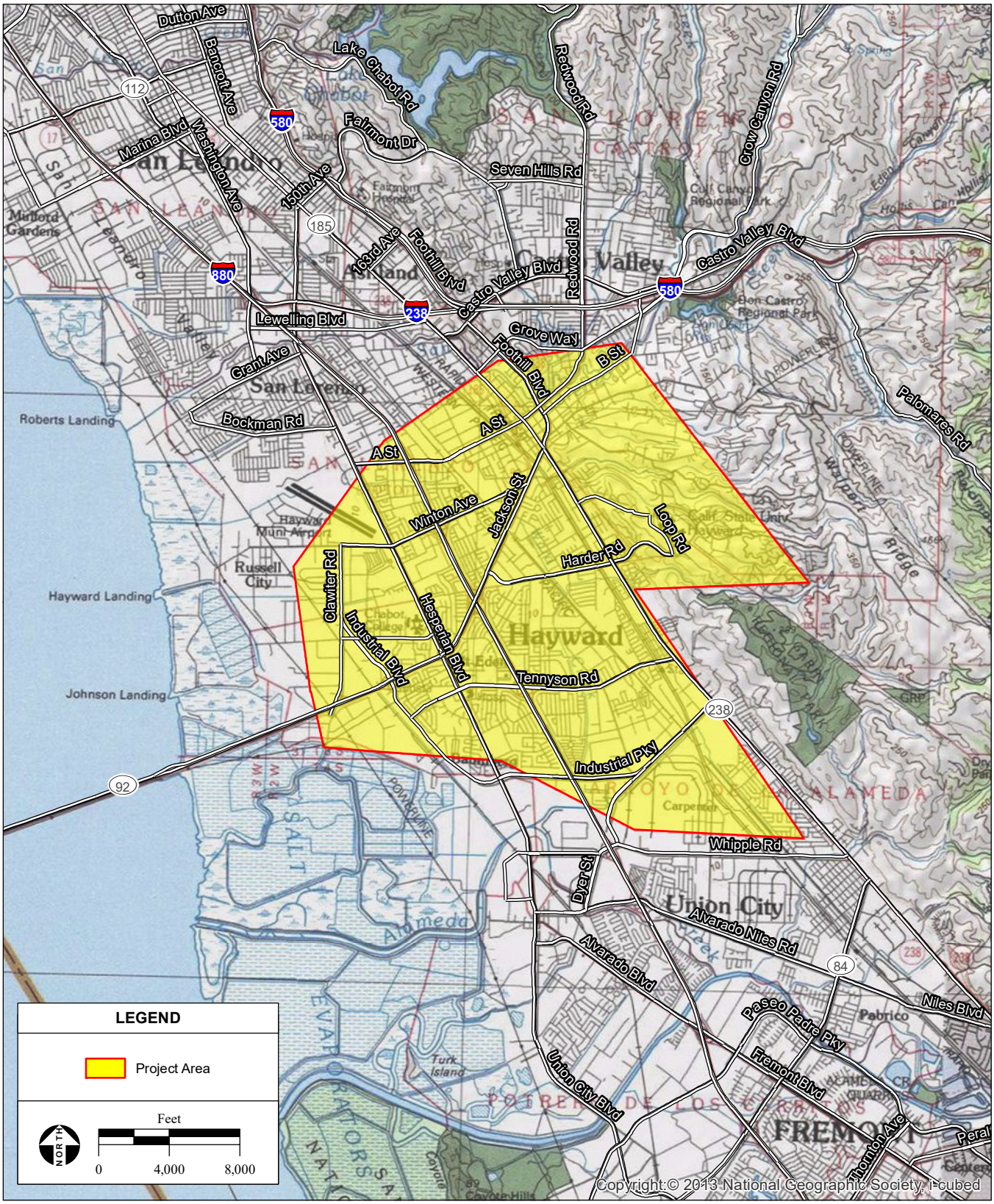
On January 28, 2020, the City Council adopted a Strategic Roadmap that identified improvements to its infrastructure as a core priority, including water and sewer utilities (City of Hayward, 2020a). With this plan, the City aims to annually upgrade four to six miles of its water distribution and sanitary sewer collection system infrastructure to meet the City's level of service goals. These replacements will improve the City's water distribution system and sewer collection system, maintain the operability and capacity of the systems, provide adequate fire flows, and prevent sanitary sewer overflows.

In June 2014, the City's Water System Master Plan (WSMP) (City of Hayward, 2014a) was developed. This document identifies strategies for improving the City's distribution system infrastructure, provides guidance to enhance operational, emergency preparedness, and water quality practices, provides a framework for diversifying the City's water supply, and makes recommendations to enhance the City's existing sustainability programs. The WSMP includes recommendations addressing both capacity deficiencies in the existing water distribution system and future capacity requirements. Furthermore, in 2015, the City's Sewer Collection System Master Plan (CSMP) was prepared, which identified collection system capacity deficiencies and presented recommended projects to address those



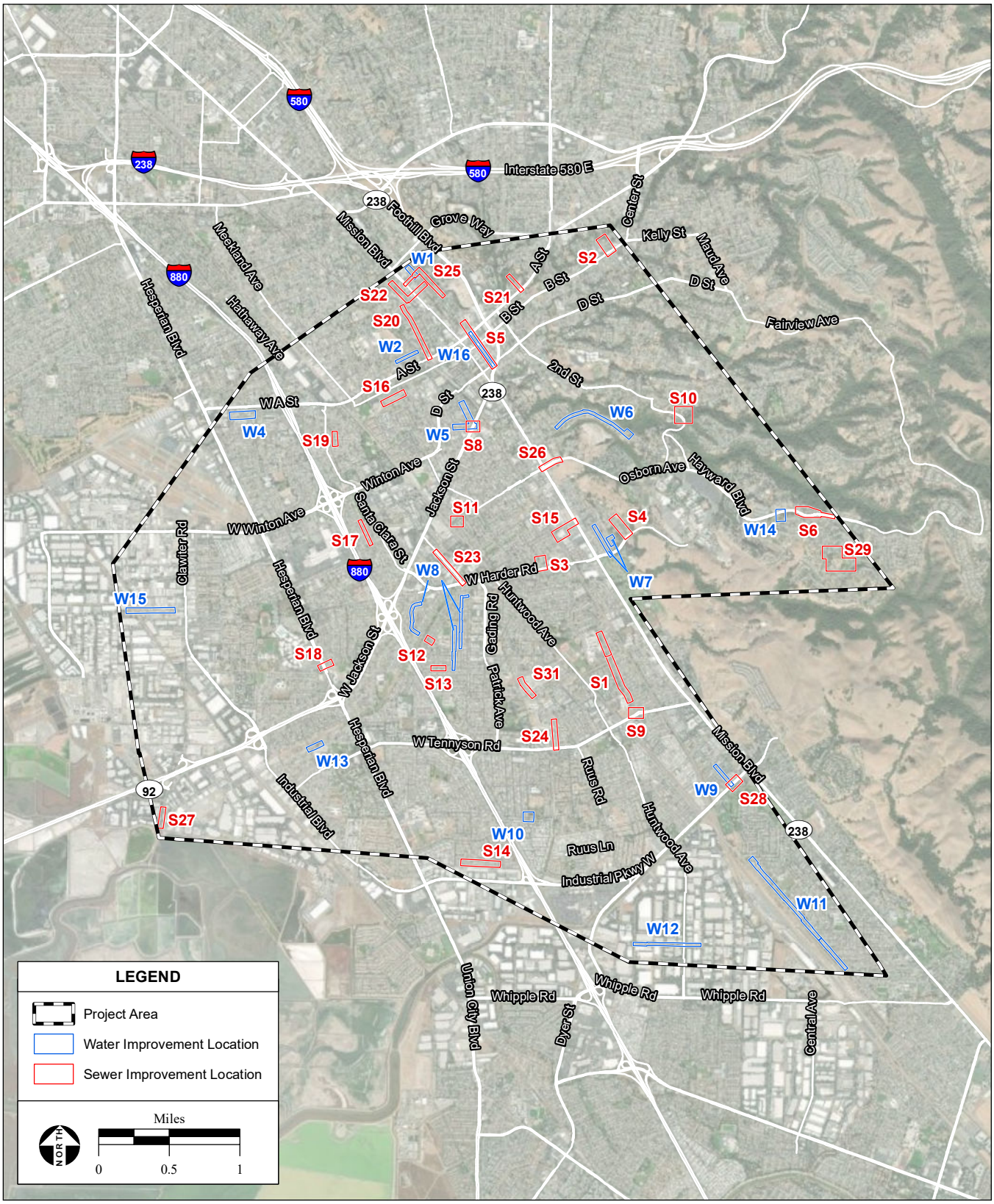
SOURCE: NatGeo 2021; AES, 5/11/2021

Figure 2-1
Regional Location



SOURCE: "San Francisco, CA" USGS 100k Topographic Quadrangle, T3S R2W Unsectioned Areas of San Lorenzo-Castro, San Lorenzo-Soto, & Potrero de los Cerritos, Mt. Diablo Baseline & Meridian; ESRI, 2020; AES, 5/11/2021

Figure 2-2
Project Area



SOURCE: HydroScience Engineering, 12/2020; Vivid/Maxar aerial photograph, 11/4/2019; Caltrans, 2020; AES, 6/21/2021

Figure 2-3
Pipeline Locations

deficiencies (City of Hayward, 2015). Water and sewer pipeline improvements associated with the Proposed Project were specifically chosen by the City based on recommendations within these two Master Plans. Pipes were also selected for replacement considering frequency of breaks, the presence of sags or breaks, those pipes that are reaching the end of their useful life, and replacement of asbestos cement pipe (ACP) and cast-iron pipe with more suitable materials, such as polyvinyl chloride (PVC). The WSMP and CSMP directed the City's current Capital Improvement Program (CIP) through determining priority improvements and how to fund them. Funding is targeted to replace the City's water mains to improve supply reliability and fire flow, and undersized and structurally damaged sewer mains through annual water and sewer line replacement projects. The City's General Plan dictates that the WSMP and the CSMP shall be maintained and implemented.

Existing Utility Distribution

The City's approximately 160,000 residents are serviced by roughly 375 miles of water distribution pipelines. The City is supplied water from the San Francisco Public Utilities Commission (SFPUC). The City distribution system consists of 8 pressure zones, 16 water storage tanks, 7 pump stations, and 375 miles of water distribution pipelines servicing 37,500 water service connections. According to City records, approximately 67 percent of the City's water distribution pipelines are ACP and most of the existing water pipelines are 6-inches in diameter (**Appendix B**).

The City owns and operates the wastewater collection and treatment system for residential, commercial, and industrial users. The City's residents are serviced by approximately 325 miles of sewer mains and nine sewage lift stations. The collection system conveys the wastewater flow to the City's Water Pollution Control Facility (WPCF), which treats an average of 11.3 million gallons per day of wastewater generated by the City's residents and businesses (**Appendix B**).

2.4 PROJECT DESCRIPTION

The Proposed Project involves replacing and improving approximately 5.2 miles of water mains, 3.7 miles of sewer line segments, and reconnection or replacement of laterals and appurtenances in accordance with City standards. Pipeline locations to be replaced/improved were based on recommendations within the WSMP and CSMP. The following sections detail the specific pipeline locations to receive upgrades. **Table 2-1** lists each improvement location.

2.4.1 WATER LINE IMPROVEMENTS

The Proposed Project would upgrade water distribution infrastructure at 15 locations throughout the City (see **Table 2-1** and **Figure 2-3**). The Proposed Project would also update the City's hydrants and their placement, water service connections, and meter box locations. Water mains would be located within street rights-of-way and five feet from the face of curb, to the extent possible. Design criteria for pipe material, coating, lining, joints, and fittings are set by City standards and project specific requirements and are further discussed in **Section 2.4.6** below.

Water pipeline improvements associated with the Proposed Project include either replacement, installation, and/or rerouting of water pipelines and appurtenances on various easements and streets throughout the City. Two of the water pipeline locations (W12 and W15) include railroad crossings, which would require the use of trenchless construction methods. The remaining sites would involve the open cut

method for pipeline removal and replacement. The new water mains would be installed in parallel to the existing mains as much as practicable to minimize water service disruption. The existing pipelines would be abandoned in-place.

2.4.2 SEWER LINE IMPROVEMENTS

The Proposed Project would replace and/or rehabilitate approximately 3.7 miles of existing sanitary sewer lines within the City, at 29 distinct locations. This includes replacement and/or rehabilitation of manholes, replacement of lower sewer laterals, paving, and associated work. Construction would be through conventional open cut methods, with the exception of location S15 requiring installation of a steel casing by trenchless methods and pipe reaming to replace a portion of the existing sewer, cured-in-place pipe liner used at location S4, and pipe bursting to replace existing sewers at locations S20, S22, S23, S24, S25, S26, and S29. Design criteria for pipe material, coating, lining, joints, and fittings are set by City standards and project specific requirements and are further discussed in **Section 2.4.6** below.

Table 2-1. Water and Sewer Pipeline Improvements

Water Line Improvements							
	Existing			Proposed			
Location	Size (in)	Material	Year	Size (in)	Length (ft)	Surrounding Land Use	Description of Improvement and Need
W1	4	CIP	1965	8	240	Residential Crosses fault	Replace water mains; chosen to be replaced based on frequency of breaks. Will be installed with ERDIP.
	6	CIP	1965	8	135		
	8	DIP	1992	8	110		
W2	6	CIP	1929	8	795	Residential	Replace water mains; mains have exceeded service life. Will be replaced with PVC.
W4	6	ACP	1960	8	770	Residential	Replace water mains; chosen to be replaced based on frequency of breaks. Will be replaced with PVC.
W5	6	CIP	Varies	8	940	Residential	Replace water mains; chosen to be replaced based on frequency of breaks and have exceeded service life. Will be replaced with PVC.
	6	CIP	1938	8	630	Residential	
W6	6	CIP	1948	8	3,155	Residential	Replace water mains; chosen to be replaced based on frequency of breaks. Will be replaced with DIP.
W7	4	ACP	1951	8	195	Residential	

	6	CIP	1951	8	260	Adjacent to fault	Replace water mains; chosen to be replaced based on frequency of breaks. Will be installed with ERDIP on Spring Ct. and DIP on Bryn Mawr Ave.
	6	CIP	1951	8	1,205		
W8	6	ACP	1954	8	1,630	Residential	Replace water mains; chosen to be replaced based on frequency of breaks. Will be replaced with PVC.
	6	ACP	1953	8	2,275		
	6	ACP	1953	8	1,475		
W9	6	ACP	1956	12	1,010	Residential	Upsize water main for capacity. Will be replaced with DIP.
W10	N/A	N/A	N/A	8	0	Residential	Installation of a fire hydrant.
W11	6	ACP	1955	8	205	Residential	Replace water mains; chosen to be replaced based on frequency of breaks. Will be replaced with PVC.
	6	ACP	1955	12	705		
	6	ACP	1955	12	1065		
	6	ACP	1955	12	400		
	6	ACP	1951/ 1955	12	3,185		
	6	ACP	1951/ 1955	12	465		
W12	12	ACP	1969	12	785	Industrial	Replace water mains; chosen to be replaced based on frequency of breaks. New pipeline to be constructed within a casing under the rail line using trenchless technologies. Will be replaced with fusible PVC within a steel casing.
	12	ACP	1969	12	1,900		
W13	12	ACP	1955	12	595	Residential - PG&E utility corridor	Relocate water main approximately 15 feet north for ease of maintenance access. Easement is adjacent to PG&E facilities - new easement required. Will be replaced with DIP.
W14	NEW	N/A	N/A	8	350	College Heights Park	New water main to provide a redundant supply pipeline to the neighborhood uphill along Belfast Lane. Alignment traverses through lawn of park. Will be replaced with DIP.

W15	NEW	N/A	N/A	12	1,350	Industrial	Install new water main to improve fire flow capacity per Water Master Plan, EX-CIP-P1 project. Buried critical utilities nearby. Crosses railroad tracks and under the lined Alameda County drainage channel to connect to existing pipe. Will be replaced with fusible PVC within a steel casing.
W16	8	CIP	1948	12	1,605	Residential/Commercial - one block from fault	Replace water main as it has exceeded service life and needs to be upsized prior to the City's Main Street Complete Streets Improvement Project. Considerations of fault proximity will be made during the design. Will be replaced with DIP. Fusible PVC within a steel casing will be used for the trenchless section.
Total Approximate Length (Water Lines)							**27,435 feet (5.20 miles)**
Sewer Line Improvements							
	Existing			**Proposed**			
Location No.	**Size (in)**	**Material**	**Year**	**Size (in)**	**Length (ft)**	**Surrounding Land Use**	**Description of Improvement and Need**
S1	8	VCP	1949	N/A	N/A	Residential – near Tennyson High School	Install sanitary sewer MH at 6 intersections to improve maintenance access.
S2	6	VCP	1960	N/A	N/A	Residential	Change cleanout to MH.
	6	VCP	1980	N/A	N/A		
S3	8	VCP	1950	8	470	Residential - Cross through Harder Elementary	Replace sewer main due to cracked pipe.
S4	8	VCP	1949	8	560	Private residential backyards - near fault	Replace sewer main due to deformed pipe condition. Rehabilitation via CIPP repair is also proposed.
S5	6	VCP	1950	8	70		

	6	VCP	1950	8	440	Residential/Commercial - Near Hayward Fault.	Replace sewer main due to offsets prior to the City's Main Street Complete Streets Improvement Project.
	6	VCP	1998	8	235		
	6	VCP	1927	8	195		
	6	VCP	1927	8	380		
S6	10	ACP	1967	12	1,500	Residential	Upsize sewer main for more capacity.
S8	8	VCP	1930 to1940	10 or 12	735	Residential	Reroute flow to reduce turns in alignment and improve maintenance access. Install new MH and divert flow from MHs.
S9	8	VCP	1950	10 or 12	335	Residential	Reroute flow to alleviate downstream capacity.
S10	8	VCP	1966	10 or 12	295	Residential - near Green Belt Park.	Upsize sewer main due to surcharging during wet weather. Abandon MH as overflow drain to creek.
S11	8	VCP	1949	8	200	Residential	Reroute flow to alleviate flows on Pleasant and Soto. Install new MH.
S12	N/A	N/A	N/A	12	45	Residential - near Schafer park School	Reroute flow from MH to new MH. Install new main and MH.
S13	8	VCP	1952	8	400	Residential	Replace sewer main due to sag.
S14	12	VCP	1966	8	295	Commercial Residential	Replace sewer main due to sag.
	12	VCP	1964	12	355		
	12	VCP	1964	12	360		
S15	10	VCP	1949	12	1005	Residential and Commercial	Replace sewer main via pipe reaming due to sag and upsize for more capacity. Section of sewer main crosses BART.
S16	8	VCP	1945	8	N/A	Residential - near Burbank School	Install MH for maintenance access
S17	8	VCP	1955	8	20	Residential	Replace sewer main due to sag.
	8	VCP	1955	8	75		
S18	8	VCP	1959	8	60	Residential - near Chabot College	Replace sewer main due to sag.
S19	6	VCP	1950	8	520	Residential	Upsize sewer main for more capacity. Existing pipe cracked and has sag.
S20	6	VCP	UNK	8	2100	Residential. Near Hayward Fault.	Upsize sewer main for more capacity. Replacement may be done via pipe bursting or open cut.

S21	6	ACP	1950	8	385	Residential and commercial - near Hayward Japanese Gardens	Upsize sewer main for more capacity. Existing pipe is cracked.
	6	N/A	N/A	8	N/A		Replace C/O with MH.
S22	6	VCP	UNK	8	905	Residential - near fault	Upsize sewer mains for more capacity by pipe bursting or open cut.
	8	VCP	UNK	10	915		
S23	8	VCP	1949	12	420	Residential	Upsize sewer mains for more capacity per Project P3 of Sewer Master Plan
	8	VCP	1949	12	105		
	8	VCP	1949	12	285		
	8	VCP	1949	12	365		
	8	VCP	1949	12	45		
	8	VCP	1949	12	365		
	8	VCP	1949	12	55		
	8	VCP	1949	12	90		
S24	12	HDPE	1999	15	405	Residential	Upsize sewer mains via pipe bursting or open cut for more capacity per Project P6 of Sewer Master Plan.
	12	HDPE	1999	15	300		
	12	HDPE	1999	15	100		
	12	HDPE	1999	15	155		
	12	HDPE	1999	15	100		
S25	6	VCP	1928	8	200	Residential - near fault	Sewer main has exceeded service life. Sags and crack in pipe. Install MH. Will be installed with HDPE.
	6	VCP	1928	8	265		
	6	VCP	1928	8	325		
	6	VCP	1928	8	400		
	8	VCP	1928	8	700		
S26	8	VCP	1949	12	330	Commercial and residential – near fault	Upsize sewer main for more capacity, per Project P1 of Sewer Master Plan, via pipe bursting or open cut.
S27	8	VCP	1968	8	235	Commercial and Industrial	Replace sewer main due to sag.
S28	8	VCP	UNK	12	55	Industrial	Upsize sewer main for more capacity.
	8	VCP	UNK	12	125		
	8	VCP	UNK	12	65		
	8	VCP	UNK	12	115		
S29	8	VCP	1968	8	235	Residential	Replace sewer main due to sags and roots, via pipe bursting or open cut.
	8	VCP	1968	8	205		

	N/A	N/A	N/A	N/A	N/A	Canyon View Park	Repair existing access road and retaining wall.
S31	8	Various	1957	8	470	Residential – in front of Tyrrell Elementary	Replace existing sewer main due to deteriorated condition of pipe.
Total Approximate Length (Sewer Lines)							**19,370 feet (3.7 miles)**

Acronyms: ACP: Asbestos Cement Pipe; UNK: Unknown; CIP: Cast Iron Pipe; DIP: Ductile Iron Pipe; VCP: Vitrified Clay Pipe; MH: Sanitary Sewer Manhole; ERDIP: Earthquake Resistant Ductile Iron Pipe; HDPE: High Density Polyethylene

Note: Locations S7 and W3 have been removed from the Proposed Project.

2.4.3 ACCESS ROAD AND RETAINING WALL REPAIRS AT S29

Sewer pipeline replacement location S29 is within the Canyon View Park area. In the vicinity of this location, the existing sewer main is proposed to be replaced due to sags and roots. In addition, the City's Public Works department has requested that an existing access road and wood retaining wall be repaired. The existing access road would be regraded and recompacted. The improvement of this access road would be the only permanent introduction of new hardscape associated with the Proposed Project.

2.4.4 GEOTECHNICAL STUDIES

Cal Engineering and Geology (CE&G) first reviewed the available geotechnical information of the Project Area to characterize the soil conditions anticipated to be present and developed a tailored investigation scope. CE&G has obtained available information regarding geology, soil, and groundwater levels across the Project Area. They used this geotechnical data for analysis and the development of preliminary recommendations for the Proposed Project. CE&G prepared a Geotechnical Desktop Study (**Appendix C**) which summarizes their evaluation of existing geotechnical information and provided Project-specific recommendations. Where data gaps exist, CE&G provided recommendations for additional exploration. The Geotechnical Desktop Study concluded that:

- High groundwater may be encountered at locations closer to the Bay;
- Excavations made in the upper five feet below ground surface are anticipated to be able to stand vertically for water pipeline installation;
- Excavations in Bay Mud may be susceptible to buoyant uplift (applies to location S27)
- The water and sewer pipeline sites are in areas of very low to moderate susceptibility to liquefaction;
- Locations W1, S25, and a portion of W7 are located on the Hayward Fault. Locations W16, S4, S5, S20, and S26 are located approximately one block away from the Hayward Fault.

In areas of the City where groundwater levels are shallow, the potential for buoyancy uplift is high; for open cut construction, dewatering would likely be required to mitigation buoyance uplift. Soil borings will be conducted at the trenchless locations, W12, W15, and S15 to help with design of the new steel casing and the railroad crossing permit applications. Additional borings will be advanced in native trench backfill

at sites where pipe bursting will be performed to confirm the sustainability of the material for pipe bursting and to determine the projected soil heave. Borings were completed where required during March 2021.

2.4.5 UTILITY LOCATING AND POTHOLING

Critical utilities that need to be located will be potholed, such as large diameter gas pipelines and fiber-optic cables. Other utilities that appear to be close to the pipeline improvements will be potholed, as needed, to assure adequate clearance for construction. This potholing is being performed in coordination with the City to verify the horizontal and vertical location of selected existing utilities.

2.4.6 CITY STANDARDS AND DESIGN CRITERIA

The Proposed Project will adhere to City Department of Public Works & Utilities Standards, including City of Hayward Specifications for Construction of Water Mains (12-inch diameter or less) and Fire Hydrants (July 2006-R1), City of Hayward Specifications for Construction of Sanitary Sewer Mains and Appurtenances (12-inch diameter or less) (November 2006), City of Hayward Standard Details 2017, and Public Works Memo 5-6, Policies and Procedures for Construction Activities Near City Aqueducts. These standards would be used for the design of the pipeline alignments and detailing, as well as specifying the materials of construction and execution within construction documents.

Design and Location of Water Mains and Sanitary Sewers

Water mains would be located within street rights-of-way and five feet from the face of curb, to the extent possible. Water valves would be required at all branches, hydrant lines, and right-of-way/easement transitions. City of Hayward Standards state that depth of cover shall be 48-inches for water pipes with an inside diameter greater than 6-inches and 36-inches for water pipes smaller than 6-inches. Replacement sanitary sewer mains would generally be located along the alignments of the existing sanitary sewers to preserve the exiting grade for connecting sewer services. Where this is impractical, the new sewer would be placed in the roadway or in an easement to minimize conflicts with other sewers and to provide good access for inspection and maintenance of the sewers. The lower sanitary sewer laterals would be replaced concurrent with the sewer main from the main connection to behind the property line in accordance with City standards. Each new lower lateral would be provided with a new cleanout.

Minimum pipeline separation requirements are governed by CCR § 64572. The City's separation requirements are identified in the Standard Specifications, Section 1.10.B and as shown in Standard Drawing No. SD-224 and meet or exceed the separation requirements in CCR § 64572. Where local conditions create a situation where there is no alternative but to install water mains at a distance less than that which is required by the Standards, Alternative Criteria for Construction shall be followed per City Standards 1.10.B.2, which meets or exceeds the separation requirements in CCR § 64572.

Pipeline Design Criteria

Design criteria for pipe material, coating, lining, joints, and fittings are set by City standards and project specific requirements.

Water mains would generally be constructed of ductile iron pipe (DIP) with a class 50 thickness conforming to AWWA C150/A21.50, C151/A21.51 or PVC Class 150 conforming to AWWA C900/905. DIP would be asphalt coated and lined with cement mortar and seal coated conforming to AWWA

C104/A21.4. Joints for water mains would be DIP flanged and restrained conforming to AWWA C115/A21.15, with rubber gaskets or PVC. Fittings for water mains would be ductile iron (pressure class 250) with cement lining and seal coated. Flexible couplings would be used (Type 304 stainless steel) and corrosion protection of metallic DIP would occur through asphaltic coatings and polyethylene encasement. Earthquake resistant ductile iron pipe (ERDIP) would be used for water pipeline improvements that cross or are adjacent to an active fault zone, as this material could mitigate soil movement.

Isolation valves would be constructed at each branch where new water pipelines connect to existing pipelines, at intervals not exceeding approximately 1,000 feet, and at either end of trenchless reaches.

New water service lines would be installed to connect existing services and fire hydrants to the new water main. The existing fire hydrants and meter boxes would be expected to remain in a similar location to where they are currently located.

New sewer mains would generally be constructed of SDR 26 PVC sewer pipe conforming to ASTM D3034. Where spot repairs are performed on existing vitrified clay pipe (VCP), new VCP conforming to ASTM C700 would be used to conform with the inside diameter of the adjoining pipe. Sewer pipe installed by pipe bursting and/or pipe reaming would be fusible PVC pipe conforming to AWWA standards C900 or C905 with a maximum SDR of 26. High Density Polyethylene (HDPE) pipe would be used where the sewer crosses a known fault, as the durability and flexibility of HDPE makes the material more likely to withstand future earthquakes or fault movement. Sewer laterals would be constructed of SDR 26 PVC pipe conforming to ASTM D3034. Cleanouts would be installed where the new lateral connects to the building sewer. This construction would conform to City Standard Details SD-312 and SD-313. Pipe sizes for both water and sewer would be 8-inches minimum in size.

Valves and Appurtenances – Water Mains

All isolation valves, 12-inches and smaller, shall be gate valves meeting the City Standard Specifications. The existing service lines and meters would remain in place to the extent possible. From the new water main, service line stubs would connect to the existing service lines. The specifications would include an allowance for providing entirely new service lines if the existing lines are determined to be in poor condition during construction. New pipeline would be installed to reconnect the existing fire hydrants to the new water main. The existing fire hydrants would either remain in place or be moved to a new location if the current location is observed to be in a location subject to damage. Along a reach of pipeline, air release valves would be located at the highpoints and blowoffs would be installed at the low points. Corrosion protection would be provided on the metallic DIP, as described previously. Sacrificial galvanic anodes would be provided at each valve.

Manholes – Sanitary Sewer Pipe

Sanitary sewer manholes would conform to the City's standard details SD-304 and SD-305. At least two special manholes would be required. At location S12, an oversized manhole would be designed to accommodate the 12- and 15-inch sewers that will be joining at similar grades. At location S21, a shallow cleanout would be replaced with a shallow manhole. In general, new manholes would be installed concurrent with new sewer construction, including at the ends of all sewer reaches where the new sewer

connects with existing sewer. New manholes would be located with a maximum spacing of 400 feet, in accordance with City standards.

2.4.7 CONSTRUCTION

Based on geotechnical analysis, open cut trenching was found to be the recommended construction method for the majority of the water line improvement locations. However, trenchless construction methods would be employed at locations W12 and W15. For sewer line improvement locations, pipe reaming and pipe bursting methods may be feasible, as long as the existing sewer does not harbor any significant sags. As mentioned previously, pipe bursting is being considered for sewer replacement at Sites S20, S22, S23, S24, S25, S26, and S29, and pipe reaming is being considered for replacement under the sidewalk at location S15.

There are many existing utilities within the vicinity of pipeline locations. Protection of these pipelines during trenchless construction (particularly pipe bursting) will be a key consideration in selecting trenchless installation. New steel casing would be required to cross the Union Pacific Railroad and Bay Area Rapid Transit (BART) tracks as a part of the work at location S15. This casing would need to be installed by trenchless method to avoid disrupting rail traffic. The most likely methods for this installation would be by guided boring or by microtunneling. The recommended method would be selected in consultation with a geotechnical engineer. The remainder of the sewer pipeline construction would be performed by conventional open-cut construction methods.

Open Cut Trenching

In areas that do not involve crossing significant at-grade facilities, such as rail crossings, pipelines would be constructed using open cut trenching. Open cut trenching requires clearing of the pipeline alignment, saw cutting pavement where necessary, excavation of the trench, pipeline installation, backfill operations, and re-paving where necessary. Estimated trench depth for potable water pipelines would be approximately five to six feet, with 36 to 48 inches of cover. Estimated trench depth for sewer pipelines would be approximately 10 to 15 feet, with depths of cover typically up to 13 feet. The pipeline depth for sewer pipelines would depend on the elevation of the existing sewer. Pipeline depths for sewer pipeline will vary by pipeline location.

Depending on site conditions or terms of the encroachment permit, trenches would be secured at the end of each workday by either covering with steel plates, backfill material, or installing barricades to restrict access. If the area were paved prior to construction, a trench patch or covering would be used. Construction for open cut trenching is expected to occur at a pace of approximately 20 to 120 linear feet per day.

Jack and Bore Tunneling and Directional Drilling

Jack and bore tunneling or directional drilling (trenchless methods) would be utilized for installing underground pipelines without disturbing the ground surface. This method would be utilized in areas where trenching methods are not feasible due to limited space, the presence of sensitive biological resources (i.e., stream crossings and riparian areas), geotechnical conditions, or other environmental constraints. Jack and bore tunneling involves advancing a horizontal boring machine in a tunnel bore to remove material ahead of the pipe. In the directional drilling method, a small diameter hole is directionally

drilled using a horizontal drill rig, and is then enlarged to a diameter that would accommodate the pipeline. Construction via trenchless methods is expected to occur at a pace of 10 to 90 linear feet per day.

Waste Disposal

The majority of pipelines would be abandoned in place and would not require waste disposal. Significant amounts of solid waste are not anticipated. In circumstances where pipe needs to be cut into and disposed of ACP would be performed in accordance with the BAAQMD and all applicable standards.

Surface Restoration

Surface restoration techniques would be employed after segments of pipeline construction are completed. In most cases this would involve repaving of roadways. Roadways would be restored to pre-project conditions and unpaved areas would be restored by hydroseeding.

Staging Areas

If required, staging areas would be utilized in areas near construction sites to store pipe and other materials, construction equipment, and other necessary items. This is anticipated to take place in the parking areas or along the side of public streets in paved or graveled areas. Short-term temporary easements for staging areas may be required and would be negotiated by contractors prior to construction. Staging areas would be located in previously disturbed areas where sensitive biological resources are not present. The contractor would obtain necessary permits from the City, as required.

Construction Equipment

Energy efficient construction equipment would be utilized to the extent feasible. The following equipment may be utilized during construction of the project:

- Horizontal directional drill rig
- Pavement saw
- Jack hammers
- Excavators
- Front-end loaders
- Dump truck
- Crane
- Bulldozers
- Flat-back delivery truck
- Concrete trucks
- Sweepers
- Road grader
- Concrete pumper trucks
- Welding trucks
- Paving equipment: back hoe, asphalt hauling trucks, compactors, paving machines, rollers

2.4.8 OPERATION AND MAINTENANCE ACTIVITIES

Periodic maintenance of water and sewer pipelines and appurtenant structures would be required after the Proposed Project is operational. Pumps, piping, valves, and appurtenant structures would be checked and maintained regularly, and replaced as necessary. City staff would inspect components of the Proposed Project regularly, and replace equipment that reaches the end of its lifetime or fails during use. Pipe materials, valves, depth of cover, maintenance, and corrosion protection measures will comply with the respective City specifications and practices.

2.4.9 SCHEDULE

The precise schedule for implementing water and sewer line improvements at each of the 44 locations is unknown at this time. However, it is anticipated that all improvements could be completed over approximately 38 months. Final design is anticipated to be complete during August 2021 with construction commencing during Fall 2021. The schedule is contingent on a variety of factors, including securing available funding, City approvals, and obtaining necessary permits and easements.

2.5 PROJECT REVIEW AND APPROVAL

2.5.1 LEAD AGENCY

In accordance with Sections 15050 and 15367 of the CEQA Guidelines, the City of Hayward is the 'lead agency' for the Proposed Project, which is defined as the "public agency which has the principal responsibility for carrying out or disapproving a project."

The following discretionary actions would be taken by the City in order to approve the Proposed Project:

- Encroachment Permits and or temporary easements for pipeline construction and staging areas within City right-of-ways.
- Approval of points of connection, pressure, flow, and ongoing use will be subject to the City's review and approval of engineering reports, plans and annual reports prepared and submitted.

2.5.2 CEQA ACTIONS

Prior to approving the Proposed Project, the City must undertake CEQA review including:

- Adoption of the Mitigated Negative Declaration – pursuant to CEQA and the CEQA Guidelines; and
- Mitigation Monitoring – Adoption of a Mitigation Monitoring and Reporting Program to reflect the measures required to mitigate significant impacts, if any, of the project.

The Mitigated Negative Declaration and Initial Study are intended to provide the CEQA documentation for approval of the Proposed Project.

2.5.3 OTHER AGENCY ACTIONS

The IS/MND prepared for the Proposed Project would be used by Responsible Agencies and Trustee Agencies that may have some approval authority of the Proposed Project. The City will obtain all permits, as required by law. The following agencies, which may be considered Responsible Agencies, have discretionary authority over approval of certain project elements, or alternatively, may serve in a ministerial capacity:

- State Water Resources Control Board (SWRCB) / San Francisco Bay Regional Water Quality Control Board (SFBRWQCB):
    - Determination that the project qualifies for coverage under the Clean Water Act (CWA) NPDES Construction General Permit for the protection of surface waters from construction and other land-disturbing activity.

- Bay Area Air Quality Management District (BAAQMD)
  - Verification of compliance with various rules and use of best available mitigation measures.
- Union Pacific Railroad (UPR)
  - Encroachment permit for railroad crossings.
- Alameda County Flood Control District
  - Encroachment permit for Flood Control District facilities crossings.

3 ENVIRONMENTAL ANALYSIS (CHECKLIST)

3.1 EVALUATION OF ENVIRONMENTAL IMPACTS

Pursuant to CEQA *Guidelines* §15063, an IS should provide the lead agency with sufficient information to determine whether to prepare an EIR or negative declaration for a proposed project. The CEQA *Guidelines* state that an IS may identify environmental impacts by use of a checklist, matrix, or other method, provided that conclusions are briefly explained and supported by relevant evidence.

If it is determined that a particular physical impact to the environment could occur, then the checklist must indicate whether the impact is Potentially Significant, Less Than Significant with Mitigation, or Less Than Significant. Findings of No Impact for issues that can be demonstrated not to apply to a proposed project do not require further discussion.

3.1.1 EVALUATION TERMINOLOGY

The following sections contain the environmental checklist form presented in Appendix G of the CEQA *Guidelines*. The checklist form is used to describe the impacts of a proposed project. For this checklist, the following designations are used:

- **Potentially Significant Impact**: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified and no mitigation is available to reduce the impact to a less-than-significant level, an EIR must be prepared.
- **Less-than-Significant Impact with Mitigation Incorporated**: Impacts that would be reduced to a less-than-significant level by feasible mitigation measures identified in this checklist.
- **Less-than-Significant Impact**: Any impact that would not be considered significant under CEQA relative to existing standards.
- **No Impact**: The Proposed Project would have no impact.

3.1.2 CUMULATIVE IMPACT ANALYSIS

In accordance with Section 15064(h) of the CEQA Guidelines, the Proposed Project's potential contribution to a significant cumulative impact has been considered. As described in **Section 2.3.1**, the WSMP and CSMP are required to be implemented under the City's General Plan and contain recommendations to meet infrastructure needs and capacity deficiencies for future buildout and growth anticipated and planned for in the General Plan. Water use projections within the WSMP were developed based on a population and employment-based methodology using Association of Bay Area Governments (ABAG) growth projections, which were correlated with land use information from the city's General Plan. Future base wastewater flow projections within the CSMP were estimated by

applying unit flow factors to the increase in the number of households and jobs based on land use information provided by the City's Planning Department. This included the 2010 ABAG household and employment projections for Traffic Analysis Zone and Priority Development Areas, and subdivision tract information for planned developments and redevelopments (City of Hayward, 2015). Because infrastructure improvements associated with the Proposed Project are based on recommendation within the WSMP and CSMP, which are both accounted for in the City's General Plan, potential cumulative impacts from the Proposed Project have already been considered and would not lead to unexpected cumulative impacts.

3.2 AESTHETICS

3.2.1 ENVIRONMENTAL CHECKLIST

AESTHETICS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

3.2.2 SETTING

Regulatory Context

California Scenic Highway Program

The California Scenic Highway Program, administered by Caltrans, intends to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to scenic highways. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been designated. Cities and counties can nominate eligible scenic highways for official designation by identifying and defining the scenic corridor of the highway. The municipality must also adopt ordinances to preserve the scenic quality of the corridor or document such regulations that already exist in various portions of local codes.

Environmental Setting

The individual improvement locations are generally located in urbanized areas with a mix of residential and commercial uses. There are no State Scenic Highways within the Project Area. The nearest eligible State Scenic Highway is Interstate 580, which does not provide views of any improvement location (Caltrans, 2018). The Proposed Project does not involve components that would be visible, as pipeline improvements would be located underground, with the exception of the access road and retaining wall repairs that would occur at location S29.

Scenic Resources

There is no comprehensive list of specific features that automatically qualify as scenic resources; however, certain characteristics can be identified which contribute to the determination. The following is a partial list of visual qualities and conditions that if present, may indicate the presence of a scenic resource:

- A tree that displays outstanding features of form or age.
- A landmark tree or a group of distinctive trees accented in a setting as a focus of attention.
- An unusual planting that has historical value.
- A unique, massive rock formation.
- An historic building that is a rare example of its period, style, or design, or which has special architectural features and details of importance.
- A feature specifically identified in applicable planning documents as having a special scenic value.
- A unique focus or a feature integrated with its surroundings or overlapping other scenic elements to form a panorama.
- A vegetative or structural feature that has local, regional, or statewide importance.

3.2.3 DISCUSSION OF IMPACTS

Question A

Would the project: Have a substantial adverse effect on a scenic vista?

Less than Significant. The Proposed Project involves improving various water and wastewater pipeline segments across the City, as well as repairing an existing access road and retaining wall at location S29. Upon completion, improved pipelines would be located underground and therefore, not visible. Repairs to the existing access road and retaining wall would not change the current aesthetic. There are no direct views of scenic resources that would potentially be blocked due to construction of the Proposed Project. Construction activities could potentially impair views; however, this would be temporary. Impacts would be less than significant.

Question B

Would the project: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. None of the pipeline improvement locations would involve damaging scenic resources, such as trees, rock outcroppings, or historical buildings. Furthermore, the majority of improvements would take place in paved right of ways. No impact would occur.

Question C

Would the project: In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Impact. The Project Area is located in an urbanized area. As described above, improved pipelines would be located underground and therefore, would not degrade the existing visual character of public views. No impact would occur.

Question D

Would the project: Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

No Impact. The Proposed Project does not involve any permanent new sources of light or glare. Construction activities may introduce lights sources; however, this would include lighting for construction visibility and safety, and would be temporary in nature and not substantial. As described in **Section 3.14.2**, construction would occur on Sundays and holidays only after approval by the City, and would be restricted to the hours of 10:00 a.m. to 6:00 p.m. or as authorized by the City. On all other days, construction would occur between the hours of 7:00 a.m. to 7:00 p.m., in alignment with the City's Municipal Code. Therefore, lighting during nighttime conditions would be limited. No impact would occur.

Cumulative Impacts

No Impact. The Proposed Project would not have impacts on aesthetics; therefore, Proposed Project would not contribute to cumulative impacts to aesthetics.

3.2.4 MITIGATION MEASURES

None required.

3.3 AGRICULTURE/FORESTRY RESOURCES

3.3.1 ENVIRONMENTAL CHECKLIST

AGRICULTURE/FORESTRY RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.3.2 SETTING

Regulatory Context

Federal

Farmland Protection Policy Act

The Farmland Protection Policy Act is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that federal programs are administered in a matter that is compatible with state and local units of government, and private programs and policies to protect farmland (7 United States Code [USC] § 4201).

State

California Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP), which monitors the conversion of the State's farmland to and from agricultural use, was established by the California Department of Conservation (DOC), under the Division of Land Resource Protection. The program maintains an inventory of state agricultural land and updates its "Important Farmland Series Maps" every two years.

Williamson Act

The Williamson Act is a State program that was implemented to preserve agricultural land. Under the provisions of the Williamson Act (California Land Conservation Act 1965, Section 51200), landowners contract with the county to maintain agricultural or open space use of their lands in return for reduced property tax assessments (DOC, 2020).

Forestry Resources

Forestry Resources are defined in the California PRC Section 12220(g) as “land that can support 10-percent native tree cover of a species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits”. The California Government Code Section 51104(g) defines “timberland” as “privately owned land, or land acquired for State forest purposes, which is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, and which is capable of growing an average annual volume of wood fiber of at least 15 cubic feet per acre”.

Environmental Setting

According to the FMMP, the Project Area is predominantly classified as “Urban and Built-Up Land”. Portions of some improvement locations overlap with land classified as “Other Land” (DOC, 2020a). No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance exists on or in the vicinity of the improvement locations. Furthermore, the improvement locations are not under a Williamson Act contract and are not classified as forest land.

3.3.3 DISCUSSION OF IMPACTS

Question A

Would the project: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The Project Area is predominantly classified by the FMMP as "Urban Built-Up Land" and does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The Proposed Project involves improvements to underground water and sewer pipelines, as well as to an access road and retaining wall, and does not involve conversion of land. Therefore, the Proposed Project would not result in the conversion of farmland to a non-agricultural use. The Proposed Project would have no impacts on agricultural resources.

Question B

Would the project: Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The improvement locations are not zoned for agricultural use and are not under a Williamson Act contract. Therefore, the Proposed Project would have no impacts on existing zoning for agricultural use.

Question C

Would the project: Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. The improvement locations are not zoned Forest Land, Timberland, or Timberland Production. Therefore, the Proposed Project would not cause rezoning of forest land or timberland. The Proposed Project would have no impacts on zoning.

Question D

Would the project: Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Proposed Project does not involve conversion of land or the loss of forest land. The Proposed Project would have no impacts on forestry resources.

Question E

Would the project: Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The improvement locations do not contain land classified as farmland or forest land and the Proposed Project does not involve the conversion of land. Therefore, the Proposed Project would not convert farmland to a non-agricultural use or convert forest land to a non-forest use.

Cumulative Impacts

No Impact. The Proposed Project would not result in the conversion of agriculture or forest land; therefore, it would not contribute to cumulative impacts to agricultural resources.

3.3.4 MITIGATION MEASURES

None required.

3.4 AIR QUALITY

3.4.1 ENVIRONMENTAL CHECKLIST

AIR QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.4.2 SETTING

Environmental Setting

The City of Hayward is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). This region of the SFBAAB is bordered on the east by the East Bay hills and on the west by the San Francisco Bay. This region is indirectly affected by marine air flow and sea breezes, although less so than regions closer to the Golden Gate Bridge. The climate is also affected by its close proximity to the San Francisco Bay. During warm weather, the San Francisco Bay cools the air it comes in contact with, while during cold weather the San Francisco Bay warms the air. The normal northwest wind pattern carries this air onshore during the daytime while bay breezes draw air from the land offshore at night. Wind speeds are moderate in this subregion with annual average wind speeds of approximately seven miles per hour (mph) close to the San Francisco Bay and approximately six mph further inland. Air temperatures are moderated by the subregion's proximity to the Bay and to the sea breeze. Average maximum temperatures are in the mid-

70 degrees Fahrenheit (°F) during the summer months and in the high 50°F to low 60°F during the winter months (BAAQMD 2017b).

Sensitive Receptors

Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality related health problems. Residential areas are considered sensitive to poor air quality, because people usually stay home for extended periods of time increasing the potential exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

As described in **Section 2.2**, the majority of pipeline improvements would take place within paved and disturbed right of ways in commercial and residential areas. However, some locations occur within unpaved areas such as residential backyards, parks, or utility easements.

Regulatory Context

Ambient Air Quality Standards

The U.S. Environmental Protection Agency (USEPA), under the Clean Air Act (CAA) establishes maximum ambient concentrations for the six criteria air pollutants (CAP), known as the National Ambient Air Quality Standards (NAAQS). The six CAPs are ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), carbon monoxide (CO), lead (Pb), and particulate matter 10 and 2.5 microns in size and smaller (PM_{10} and $PM_{2.5}$, respectively).

The California CAA (CCAA) establishes maximum concentrations for the six CAPs, as well as four additional air pollutants in California (visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride). These maximum concentrations for the State are known as the California Ambient Air Quality Standards (CAAQS). Concentrations above these time-averaged limits are anticipated to cause adverse health effects to sensitive receptors.

The California Air Resources Board (CARB) is part of the California EPA and has jurisdiction over local air districts and has established their own standards and violation criteria for each CAP under the CAAQS. Refer to **Table 3-1** for the standards and violation criteria for the various averaging times for criteria pollutants of concern in the BAAQMD under the NAAQS and CAAQS.

NAAQS and CAAQS Attainment Designations

As shown in **Table 3-2**, the BAAQMD has been designated nonattainment for the federal and State O_3 standards, the State PM_{10} standard, and the federal and State $PM_{2.5}$ standards. The BAAQMD either meets the federal and California standards or is unclassifiable for all other CAPs.

California State Implementation Plan

California's State Implementation Plan (SIP) is comprised of the State's overall air quality attainment plans to meet the NAAQS, as well as the individual air quality attainment plans of each Air Quality Management District (AQMD) and Air Pollution Control District (APCD). The items included in the

California SIP are listed in 40 CFR Chapter I, Part 52, Subpart F §52.220. The California SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting,

Table 3-1. National and California Ambient Air Quality Standards and Violation Criteria

Pollutant	Averaging Time	Standard (parts per million)		Standard (microgram per cubic meter)		Violation Criteria	
		CAAQS	NAAQS	CAAQS	NAAQS	CAAQS	NAAQS
Ozone (O_3)	1 hour	0.09	N/A	180	N/A	If exceeded	N/A
	8 hours	0.070	0.070	137	137	N/A	If exceeded on more than 3 days in 3 years
Carbon Monoxide (CO)	8 hours	9	9	10,000	10,000	If exceeded	If exceeded on more than 1 day per year
	1 hour	20	35	23,000	40,000	If exceeded	If exceeded on more than 1 day per year
Nitrogen Dioxide (NO_2)	Annual arithmetic mean	0.030	0.053	57	100	N/A	If exceeded
	1 hour	0.18	0.100	470	188	If exceeded	N/A
Sulfur Dioxide (SO_2)	Annual arithmetic mean	N/A	0.030	N/A	N/A	N/A	If exceeded
	24 hours	0.04	0.14	105	N/A	If exceeded	If exceeded on more than 1 day per year
	1 hour (primary)	0.25	0.075	655	196	N/A	N/A
	3 hours (secondary)	N/A	0.5	N/A	N/A		If exceeded on more than 1 day per year
Respirable Particulate Matter (PM_{10})	Annual arithmetic mean	N/A	N/A	20	N/A	If exceeded	If exceeded
	24 hours	N/A	N/A	50	150	If exceeded	If exceeded on more than 1 day per year
Fine Particulate Matter ($PM_{2.5}$)	Annual arithmetic mean (primary)	N/A	N/A	12	12	If exceeded	If exceeded
	Annual arithmetic mean (secondary)	N/A	N/A	N/A	15	If exceeded	If exceeded
	24 hours	N/A	N/A	N/A	35	If exceeded	If exceeded on more than 1 day per year
Lead (Pb)	30-day Average	N/A	N/A	1.5	N/A	If equaled or exceeded	N/A
	Rolling 3-month Average	N/A	N/A	N/A	0.15	N/A	If exceeded

Source: CARB, 2016

Table 3-2. BAAQMD Attainment Status

Pollutant	Averaging Time	CAAQS	NAAQS
Ozone (O_3)	8 hour	**Nonattainment**	**Nonattainment (marginal)**
	1 hour	**Nonattainment**	Not Applicable
Carbon Monoxide (CO)	8 hour	Attainment	Attainment
	1 hour	Attainment	Attainment
Respirable Particulate Matter (PM_{10})	Annual Arithmetic Mean	**Nonattainment**	Unclassifiable/Attainment
	24 Hour	**Nonattainment**	Unclassifiable/Attainment
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	**Nonattainment**	**Nonattainment (moderate)**
	24 Hour	Not Applicable	**Nonattainment**
Nitrogen Dioxide (NO_2)	1 hour	Attainment	Unclassifiable/Attainment
	Annual Arithmetic Mean	Not Applicable	Attainment
Sulfur Dioxide (SO_2)	24 Hour	Attainment	Unclassifiable/Attainment
	1 Hour	Attainment	Unclassifiable/Attainment
Lead (Pb)	30 Day Average	Not Applicable	Attainment
	Calendar Quarter	Not Applicable	Attainment
Source: BAAQMD, 2019			

etc.), AQMD and APCD rules, State regulations, and federal controls for each air basin and California's overall air quality.

California State Implementation Plan

California's State Implementation Plan (SIP) is comprised of the State's overall air quality attainment plans to meet the NAAQS, as well as the individual air quality attainment plans of each Air Quality Management District (AQMD) and Air Pollution Control District (APCD). The items included in the California SIP are listed in 40 CFR Chapter I, Part 52, Subpart F §52.220. The California SIP is a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), AQMD and APCD rules, State regulations, and federal controls for each air basin and California's overall air quality.

Many of the items within the California SIP rely on the same control strategies, such as emissions standards for cars and heavy trucks, fuel regulations, and limitations on emissions from consumer products. AQMDs and APCDs, as well other agencies such as the Bureau of Automotive Repair, prepare draft California SIP elements and submit them to CARB for review and approval. The CCAA identifies CARB as the lead agency for compiling items for incorporation into the California SIP, and submitting the items to the USEPA for approval.

Toxic Air Contaminants

In addition to the above-listed California CAPs, Toxic Air Contaminants (TAC) are another group of pollutants regulated under the CCAA. TACs are less pervasive in the urban atmosphere than the CAPs,

but are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are 244 chemicals listed by the State as TACs with varying degrees of toxicity.

Sources of TACs include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), grading (asbestos), and diesel motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Health effects of TACs include cancer, birth defects, neurological damage, and death.

Ambient air quality standards have not been set for TACs. Instead, these pollutants are typically regulated through a technology-based approach for reducing TACs. This approach requires facilities to install Maximum Achievable Control Technology on emission sources.

Bay Area Air Quality Management District

The 2017 Clean Air Plan for the San Francisco Bay Area (Bay Area) is prepared with the cooperation of the BAAQMD, the Metropolitan Transportation Commission, and the ABAG. On April 19, 2017, the BAAQMD adopted the most recent revision to the Clean Air Plan, the Bay Area 2017 Clean Air Plan (BAAQMD, 2017a). The Bay Area 2017 Clean Air Plan serves to:

- Update the most recent Bay Area ozone plan, the 2010 Clean Air Plan, pursuant to air quality planning requirements defined in the California Health & Safety Code;
- Include all feasible measures to reduce emissions of O_3 precursors (reactive organic gas [ROG] and NOx) and reduce transport of O_3 and its precursors to neighboring air basins; and
- Build upon and enhance the BAAQMD's efforts to reduce emissions of fine particulate matter and toxic air contaminants.

The Bay Area 2017 Clean Air Plan includes a wide range of proposed "control measures," or actions to reduce combustion-related activities, decrease fossil fuel combustion, improve energy efficiency, and decrease emissions of potent greenhouse gases (GHG). Numerous measures reduce multiple pollutants simultaneously: for example, O_3, particulate matter, air toxics, and GHGs. Others focus on a single type of pollutant, such as "super GHGs" – defined as those GHGs with very high global warming potential (GWP) such as methane (CH_4) – or are progressive actions to remove harmful particles in the air (BAAQMD, 2017a).

BAAQMD CEQA Guidelines

On June 2, 2010, the BAAQMD Board of Directors unanimously adopted thresholds of significance to assist in the review of projects under CEQA. These thresholds are designed to establish the level at which the BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA. The current BAAQMD CEQA guidelines were approved and adopted in May 2017. While the BAAQMD is currently working on updating the CEQA *Guidelines* and thresholds of significance, no drafts have been released and therefore the 2017 version of the guidelines are the most recent available. Refer to **Table 3-3** for a summary of BAAQMD Air Quality CEQA Thresholds.

Table 3-3. BAAQMD Air Quality CEQA Thresholds of Significance

Pollutant	Construction-Related	Operations-Related	
Criteria Air Pollutants and Precursors (Regional)	**Average Daily Emissions (lb/day)**	**Average Daily Emissions (lb/day)**	**Maximum Annual Emissions (tpy)**
ROG	54	54	10
NO_X	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
$PM_{10}/PM_{2.5}$ (fugitive dust)	Best Management Practices	None	
Local CO	None	9.0 ppm (8-hour average), 20.0 ppm (1-hour average)	
Accidental Release of Acutely Hazardous Air Pollutants*	None	Storage or use of acutely hazardous materials locating near receptors or new receptors locating near stored or used acutely hazardous materials considered significant	
Odors	None	5 confirmed complaints per year averaged over three years	

Notes:
lb/day = pounds per day
ppm = parts per million
tpy = tons per year
Source: BAAQMD, 2017b

3.4.3 DISCUSSION OF IMPACTS

Methodology

The Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model, Version 9.0.0. (RCEM) was used to estimate the construction emissions for the pipeline improvements. RCEM provides default values when site-specific inputs are not available. The default values are provided in **Appendix D**. The following site-specific inputs and assumptions were used for the purposes of air quality modeling:

- Emissions from construction were calculated based on all construction related activities, including but not limited to grading, excavation, paving, use of construction equipment, material hauling, and site preparation.
- Construction would occur over a period of 38 months for water line improvement and 44 months for sewer line improvements, starting in 2021.

The results of the RCEM modeling are discussed below and output files are provided in **Appendix D**. Resulting emission estimates are compared to applicable BAAQMD thresholds to evaluate the effects of construction activities on regional air quality.

Questions A and B

Would the project: Conflict with or obstruct implementation of the applicable air quality plan; 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?

Construction

Less than Significant with Mitigation. As stated above, the Project Area is under the jurisdiction of the BAAQMD. Emissions generated from construction activities resulting from the Proposed Project would be short-term, intermittent, and temporary in nature. Construction activities associated with the Proposed Project would result in the generation of ROG, NOx, and PM_{10} emissions. PM_{10} is generally the direct result of trenching, excavation, road paving, and exhaust associated with construction equipment. PM_{10} emissions are largely dependent on the amount of ground disturbance associated with site preparation activities. Emissions of NOx and ROG are generally associated with employee vehicle trips, delivery of materials, and construction equipment exhaust. **Table 3-4** shows emissions from construction activities and compares these to BAAQMD thresholds to determine if the construction emissions of the Proposed Project would have a significant impact on regional air quality, thereby conflicting with or obstructing BAAQMD air quality plans.

Table 3-4. Construction Emissions

Year	Pollutants of Concern			
	ROG	NOx	PM_{10}	$PM_{2.5}$
	(lb/day)			
Water Line Improvements	2.11	22.61	1.09	0.95
Sewer Line Improvements	2.10	22.24	1.07	0.94
Maximum Daily Emissions	**4.21**	**44.85**	**2.16**	**1.89**
BAAQMD Thresholds	*54*	*54*	*82*	*54*
Exceed BAAQMD Threshold	No	No	No	No
Source: **Appendix D**				

As shown in **Table 3-4,** construction emissions of ROG and NO_x would not exceed the BAAQMD significance thresholds.

The BAAQMD's approach to analysis of construction-related particulate impacts is to emphasize implementation of effective and comprehensive dust control measures rather than detailed quantification of emissions. The BAAQMD considers construction-related fugitive dust impacts of projects to be less than significant if a suite of recommended dust-control measures are implemented. Dust control measures are required by the BAAQMD for compliance with their Clean Air Plan. The absence of dust control measures during construction would conflict with the BAAQMD's Clean Air Plan, which would be a potentially significant impact. Therefore, BAAQMD-identified Best Management Practices (BMP) for control of fugitive dust are included as **Mitigation Measure AQ-1**. With **Mitigation Measure AQ-1**, dust control measures would be implemented and the Proposed Project would not obstruct the implementation of an applicable air quality plan. Furthermore, construction of the Proposed Project would not result in a cumulatively considerable net increase of any CAP for which the Proposed Project region is in

nonattainment under an applicable federal or State ambient air quality standard. Therefore, construction of the Proposed Project would have a less than significant impact on regional air quality with mitigation.

Operation

Less than Significant. Periodic maintenance of water and sewer pipelines and appurtenant structures would be required after the Proposed Project is operational. Maintenance activities would result in a negligible increase in additional traffic, and the resulting additional trips added to the roadway network would not cause an exceedance of the BAAQMD thresholds. Therefore, ROG, NOx, and PM_{10} emissions would not increase over current levels, and operation of the Proposed Project would have a less than significant impact on regional air quality.

Question C

Would the project: Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant with Mitigation. Diesel particulate matter (DPM) is the main TAC of concern during construction of the Proposed Project. Construction would include grading, paving, and building activities. These activities utilize heavy equipment, which use diesel fuel and emit DPM. DPM emissions during operation would also be emitted from diesel vehicles used by employees and deliveries.

Various sensitive receptors are located in the vicinity of the improvement locations where construction activities would occur. DPM generally dissipates rapidly from its original concentration; however, due to the close distance of nearby sensitive receptors, construction of the Proposed Project has the potential to expose sensitive receptors to substantial concentrations of DPM. This would be a potentially significant impact. **Mitigation Measure AQ-2** would reduce DPM emissions from construction activities by limiting idling times for construction equipment. Further, as discussed above, CAP emissions would be well below the applicable BAAQMD thresholds. Therefore, with mitigation, construction and operation of the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations.

Question D

Would the project: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant. The Proposed Project would not result in emissions adversely affecting a substantial number of people because the Proposed Project does not include any components that would result in the generation of long-term odors or similar emissions. Construction activities that have the potential to emit odors and similar emissions include operation of diesel equipment, generation of fugitive dust, and paving (asphalt). Odors and similar emissions from construction are intermittent and temporary, and generally would not extend beyond the construction area. Due to the temporary and intermittent nature of construction odors, impacts would be less than significant.

Cumulative Impacts

Less than Significant with Mitigation. Past, present, and future development projects contribute to a region's air quality conditions on a cumulative basis; therefore, by its very nature, air pollution is largely a cumulative impact. If a project's individual emissions contribute toward exceedance of the NAAQS or the

CAAQS, then the project's cumulative impact on air quality would be significant. In developing attainment designations for criteria pollutants, the USEPA considers the region's past, present, and future emission levels. AQMDs determine suitable significance thresholds based on an area's designated nonattainment status. These thresholds provide a tool by which the districts can achieve attainment for a particular criteria pollutant that is designated as nonattainment. Therefore, the BAAQMD's significance thresholds consider the region's past, present, and future emissions levels.

Implementation of the Proposed Project combined with future development within the Project Area could lead to cumulative impacts to air quality. Construction of the Proposed Project would result in the generation of CAPs that when combined with future growth within the Project Area could lead to cumulative impacts to air quality. As discussed in detail above, emissions resulting from the Proposed Project would not exceed the BAAQMD's thresholds, and construction would be in conformance with the applicable SIP developed to address cumulative emissions of CAPs in the SFBAAB. Therefore, the Proposed Project would have a less-than-significant cumulative impact on local and regional air quality with implementation of mitigation.

3.4.4 MITIGATION MEASURES

AQ-1

The following BMPs shall be implemented during construction.

a. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
b. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
d. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
e. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
f. A publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints shall be posted. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

AQ-2

The following BMPs shall be implemented during construction.

a. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of CCR). Clear signage shall be provided for construction workers at all access points.
b. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.

3.5 BIOLOGICAL RESOURCES

Information in this section is summarized from the Biological Memorandum, dated March 2021 (**Appendix E**).

3.5.1 ENVIRONMENTAL CHECKLIST

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

3.5.2 SETTING

Regulatory Context

Clean Water Act

The U.S. Army Corps of Engineers (USACE) has primary federal responsibility for administering regulations that concern waters of the U.S. (including wetlands), under Section 404 of the CWA. Section 404 of the CWA regulates the discharge of dredged or fill material into wetlands or waters of the U.S. The USACE requires that a permit be obtained if a project proposes impacts to a surface water resource that qualifies as a wetland or water of the U.S.

Projects impacting waters of the U.S. that require a CWA Section 404 permit additionally require a CWA Section 401 Water Quality Certification Permit. Authority to issue a Section 401 permit has been delegated by the USEPA to the Regional Water Quality Control Board (RWQCB). Under the CWA, beneficial uses lost due to impacts of a project must be replaced by a mitigation project of at least equal function, value, and area. In instances where a surface water resource is not identified as a water of the U.S., but is identified as a water of the State by the RWQCB, jurisdiction falls to the Porter-Cologne Act discussed below.

Federal Endangered Species Act

The U.S. Fish & Wildlife Service (USFWS) and the National Marine Fisheries Service are tasked with implementation of the Federal Endangered Species Act (FESA) of 1973 (16 USC § 1531 et seq.).

Threatened and endangered species on the federal list (50 Code of Federal Regulations [CFR] Subsections 17.11, 17.12) are protected from “take” (direct or indirect harm) by individuals, unless a Section 10 Incidental Take Permit is granted to an individual or a Section 7 Incidental Take Permit is granted to a federal Lead Agency for potential take occurring during otherwise lawful activities. The USFWS also designates species of concern. While species of concern are not afforded legal protection under the FESA, the USFWS may still recommend specific management actions or publish guiding documents for these species. Project-Related impacts to such species, either as individuals or populations, would also be considered significant and require mitigation. Under the FESA, loss of habitat for listed species is considered a significant impact.

Critical Habitat

Critical Habitat is defined under the FESA as specific geographic areas within a listed species range that contain features considered essential for the conservation of the listed species. Designated Critical Habitat for a given species supports habitat determined by the USFWS to be important for the recovery of the species.

Migratory Bird Treaty Act

Migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 USC §§ 703 712). The MBTA makes it unlawful to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR § 10. This includes feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR § 21).

California Fish and Game Code

California Fish and Game Code §§ 1600-1616 regulate impacts to State waters and stream and lake beds. Section 1602 requires California Department of Fish and Wildlife (CDFW) notification before beginning any activity that may obstruct or divert the natural flow of a river, stream, or lake; change or use any material from the bed, channel, or bank of a river, stream, or lake; or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. California Fish and Game Code § 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State.

In addition to protections for habitat, California Fish and Game Code includes provisions that protect individuals of certain species. California Fish and Game Code §§ 2582, 3511, 4700, 5050, and 5515 include provisions against the take of any CDFW Fully Protected Species without a permit. Prior to implementation of the FESA and California Endangered Species Act (CESA), the California Department of Fish and Game (now CDFW) maintained a list of those species believed to be rare or in peril of extinction, classified as “Fully Protected.” While most species currently identified by CDFW as Fully Protected are listed under FESA and/or CESA, those species that are not formally listed, but are designated as Fully Protected, are still considered special-status species. Therefore, take of a Fully Protected Species is prohibited. CDFW additionally maintains a list of “Species of Special Concern,” which are similarly afforded protection under California Fish and Game Code and are evaluated under CEQA. Under the Code, “take” is defined as attempting to “hunt, pursue, catch, capture, or kill, or attempt” to perform such an action. California Fish and Game Code § 3503 also includes provisions against the needless destruction of eggs and nests of any bird.

California Endangered Species Act

The CDFW implements state regulations pertaining to fish and wildlife and their habitat. The CESA of 1984 (California Fish and Game Code § 2050 et seq., and CCR Title 14, §§ 670.2, 670.51) prohibits the take (interpreted to mean the direct killing of a species) of species listed under CESA (California Fish and Game Code § 2080; 14 CCR §§ 670.2, 670.5). A CESA permit (Individual Take Permit) must be obtained if a project would result in the “take” of listed species, either during construction or over the life of the project. California Fish and Game Code § 2081 allows CDFW to authorize take prohibited under Section 2080 provided that: (1) the take is incidental to an otherwise lawful activity; (2) the take will be minimized and fully mitigated; (3) the applicant ensures adequate funding for minimization and mitigation; and (4) authorization will not jeopardize continued existence of listed species (California Fish and Game Code § 2081).

Under CESA, the CDFW is responsible for maintaining a list of threatened and endangered species designated under State law (California Fish and Game Code § 2070). In addition to the list of threatened and endangered species, CDFW also maintains lists of species of special concern, which serve as “watch lists.” Pursuant to requirements of the CESA, an agency reviewing a project within its jurisdiction must determine whether any State-listed species may be present in the project area and determine whether the project would have a potentially significant impact upon such species.

Porter-Cologne Act

In instances where a surface water resource is not identified as a water of the U.S., the RWQCB may still classify the resource as a water of the State under the Porter-Cologne Act. Projects that impact waters of the state that do not meet the definition of waters of the U.S. general require a Waste Discharge Requirement Permit (WDR) from the RWQCB, or a waiver from this requirement. WDR Permits are required pursuant to California Water Code Section 13260 for any persons discharging or proposing to discharge waste, including dredge or fill, that could affect the quality of the waters of the state. The WDR permit is obtained through the RWQCB that has jurisdiction over the site on which impacts occur. The Project Site falls within the jurisdiction of the SFBRWQCB.

City of Hayward General Plan

The Natural Resource element of the City's General Plan establishes goals and policies to protect and enhance the natural resources within the Hayward Planning Area. The following goals are identified in the General Plan related to biological resources and form the foundation for the City's policies and actions related to preservation and management of such resources:

Goal NR-1	Protect, enhance, and restore sensitive biological resources, native habitat, and vegetation communities that support wildlife species so they can be sustained and remain viable.
Goal NR-6	Improve overall water quality by protecting surface and groundwater sources, restoring creeks and rivers to their natural state, and conserving water resources.

Goal NR-1 includes measures for native wildlife habitat protection, sensitive habitat protection, migratory bird habitat protection, and riparian corridor habitat protection. Goal NR-6 includes measures for erosion control, stormwater management, and NPDES permit compliance.

Environmental Setting

Special-Status Species

For the purposes of this assessment, special-status has been defined to include those species that are:

- Listed as endangered or threatened under the FESA (or formally proposed for, or candidates for, listing);
- Listed as endangered or threatened under the CESA (or proposed for listing);
- Designated as endangered or rare, pursuant to California Fish and Game Code (§ 1901);
- Designated as fully protected, pursuant to California Fish and Game Code (§ 3511, § 4700, or § 5050);
- Designated as species of concern by the CDFW (CEQA *Guidelines* § 15380); or,
- Defined as rare or endangered under CEQA.

Methodology

A biological resources survey of relevant improvement locations within the Project Area was conducted on January 21, 2021. Sewer and water line improvement locations were reviewed using aerial imagery

prior to the survey. Of the 44 locations within the Project Area, 10 were determined to have the potential for biological impacts, due to the proximity to waterways and/or vegetation, or the involvement of new ground disturbance, and were therefore targeted in the survey (see **Table 3-5** below). Improvement locations that were not included in the survey involved pipeline replacements to occur solely in paved rights-of-ways within exiting roadways, with no foreseeable potential impacts to biological resources. The survey was conducted by walking throughout the targeted improvement locations to identify habitat types, potentially occurring wetlands and waters of the U.S and state, and potentially occurring special-status species. Sensitive habitats include those that are designated by the CDFW, considered by local experts to be communities of limited distribution, or likely to be waters of the U.S. or state by the appropriate regulatory agencies. Habitat requirements of special-status species were compared to habitats observed, which were determined based on aerial photographs, field observations, and background data review. Data was collected via a Trimble Geo XH hand-held GPS receiver, camera, and field notes.

In addition to the survey, the following biological information was obtained and reviewed:

- Aerial photographs of the Subject Areas and surrounding area;
- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) list, accessed January 14, 2021 (Attachment 1 of **Appendix E**);
- California Natural Diversity Database (CNDDB) list, accessed January 14, 2021 (Attachment 1 of **Appendix E**);
- California Native Plant Society (CNPS) list, accessed January 14, 2021 (Attachment 1 of **Appendix E**);
- National Wetlands Inventory (NWI), accessed January 25, 2021 (Attachment 2 of **Appendix E**);
- Critical Habitat for Threatened and Endangered Species, accessed January 26, 2021 (Attachment 3 of **Appendix E**);
- Natural Resources Conservation Service (NRCS) soils map, accessed January 19, 20201 (Figure 4 of **Appendix E**).

Habitat requirements of special-status species were compared to habitats within the Project Area. Results of the survey are included in **Appendix E**.

Habitats

The survey area includes 10 improvement locations which have the potential for biological impacts. The dominant habitat type consists of land that has been previously disturbed and developed. Developed areas include roads, parking lots, sidewalks, railroads, residential and commercial areas, stormwater retention basins, and green space (i.e., local parks). These habitat types are summarized below in **Table 3-5** and further discussed in **Appendix E**.

Table 3-5. Summary of Habitat Types

Improvement Location	Habitat Type
SEWER LINE IMPROVEMENT LOCATION	
S3	Developed, pavement
S4	Developed, residential
S10	Developed, pavement and green space
S15	Developed, pavement and stormwater basin
S23	Developed, pavement
S28	Developed, pavement
S29	Developed, green space and residential
WATER LINE IMPROVEMENT LOCATION	
W12	Developed, pavement and railroad
W13	Developed, pavement and residential
W14	Developed, pavement and green space

Special-Status Species

The Biological Memorandum, included as **Appendix E**, summarizes the regionally occurring special-status species identified in the USFWS, CNPS, and the CNDDB lists (Attachment 1 of **Appendix E**) and provides an analysis of the potential for these species based on the presence or absence of suitable habitat within the 10 improvement locations selected for biological surveys.

Data review and special-status species searches list 27 special-status plant species and 35 special-status wildlife species with the potential to occur in the region (Attachment 1 of **Appendix E**). Based on habitats observed within the 10 improvement locations and special-status species habitat requirements, the improvement locations contain suitable habitat to potentially support one special-status animal species: western bumblebee (*Bombus occidentalis*). Species with no potential to occur in the vicinity of the improvement locations were excluded based on lack of suitable habitat, soils, and elevation.

Critical Habitat

No USFWS designated or proposed Critical Habitat occurs within the survey area (Attachment 3 of **Appendix E**).

3.5.3 DISCUSSION OF IMPACTS

Question A

Would the project: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Nesting Migratory Birds

Less than Significant with Mitigation. Suitable habitat for nesting birds protected under California Fish and Game Code, as well as the MBTA occurs on and within 500 feet of the development footprint at the surveyed improvement locations. Nesting migratory birds and raptors could be affected if vegetation removal or loud noise-producing activities associated with construction commence during the general nesting season (February 15 through September 15). Disturbance of an active nest would constitute a significant impact. **Mitigation Measure BIO-1** includes a pre-construction nesting bird survey to identify active nests should construction commence during the general nesting season, and a disturbance-free buffer around active nests during construction until a qualified biologist determines that the nest is no longer active. With implementation of **Mitigation Measure BIO-1**, impacts to nesting birds would be reduced to less than significant.

Western Bumblebee

Less than Significant. The surveyed improvement locations do not offer habitat suitable to support special-status plants and would therefore not contribute to cumulative impacts related to special-status plants. Improvement location W14 has low quality habitat to potentially support one special-status wildlife species, western bumblebee, in a foraging capacity. No signs of underground burrows or nesting cavities were observed at the time of survey. Foraging habitat is low quality, and minimal amounts of potential foraging habitat would be impacted. There would be a less than significant impact.

Question B

Would the project: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant. No, the Proposed Project would not have a substantial adverse effect on any riparian habitat or sensitive natural community because the developed habitats within the impact area of the improvement locations are not considered sensitive. Improvement location S10 has approximately 0.5 acres of riparian habitat adjacent to, but not within, the impact area of the sewer line replacement (Figure 5 of **Appendix E**). Riparian habitat in the vicinity of the improvement location S10 impact area is considered sensitive, but would be avoided through project design. The location of the proposed sewer line improvements at improvement location S10 is approximately 50 feet from the riparian area. Impacts to sensitive habitats would be less than significant.

Question C

Would the project: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than Significant with Mitigation. There are no wetlands on or adjacent to the proposed improvement locations. Improvement location S10 has a stream drainage, Ward Creek, approximately 75 feet from where sewer lines are to be improved, but is avoided through project design. A concrete stormwater catchment is adjacent to line improvements at location S15. Line improvements at S15

require trenchless methods for the installation of a steel casing and would not impact the stormwater catchment. However, construction activities, including staging and potential chemical/gasoline leakage from construction vehicles, could potentially lead to the discharge of sediment and other pollutants to nearby water bodies. This would be a potentially significant impact. **Mitigation Measures HYD-1** provides erosion and sediment control measures that would reduce potential impacts to watercourses to less than significant.

Question D

Would the project: 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. The surveyed improvement locations are developed and in a disturbed urban setting. The area surrounding the improvement locations consists of urban development, including roadways, commercial land use, residences, and greenspaces. Wildlife access to surveyed improvement locations is extremely limited. No wildlife corridors were identified within surveyed areas. Additionally, improvement locations do not support wildlife nurseries or access to wildlife nurseries. There would be no impact.

Question E

Would the project: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No impact. The Proposed Project does not conflict with biological resource elements identified in the City's General Plan. No other ordinances for protecting biological resources were identified. There would be no impact.

Question F

Would the project: 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. Improvement locations are not within the boundaries of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other conservation plan. The East Bay Regional Park District is currently developing a Habitat Conservation Plan and Natural Community Conservation Plan (EBRPD, 2021); however, the improvement locations are not within the boundaries of the planning area. The City's General Plan states that the City shall adopt a Habitat Conservation Plan for areas within and surrounding Hayward, but the program has not been started (City of Hayward, 2014b). The Proposed Project does not conflict with any existing conservation plans. There would be no impact.

Cumulative Impacts

Less than Significant with Mitigation. The context for determining cumulative impacts considers past, present, and reasonably foreseeable projects in the vicinity of the Proposed Project. Past development in the vicinity of the improvement locations is associated with the larger City, including residential development, transportation infrastructure, commercial and industrial uses, and greenspace. Future development is guided by the City's General Plan, which accounts for utility upgrades associated with the

Proposed Project. The improvement locations lack wildlife corridors and nursery sites and would therefore not contribute to cumulative impacts to these resources. The improvement locations do not offer habitat suitable to support special-status plants and would therefore not contribute to cumulative impacts related to special-status plants. Improvement location W14 has low quality habitat to potentially support western bumblebee in a foraging capacity. No signs of underground burrows or nesting cavities were observed at the time of survey. Foraging habitat is low quality, and minimal amounts of potential foraging habitat would be impacted. There would be a less than significant impact.

With implementation of **Mitigation Measure BIO-1**, the Proposed Project would avoid potential impacts to nesting migratory bird species. Because potential impacts would be avoided, the Proposed Project would not cumulatively contribute to impacts to nesting migratory birds and raptors. Additionally, the Proposed Project would not contribute to cumulative impacts to wetlands or waters of the U.S. or state, as those habitat types do not occur within the development footprint of the improvement locations. Two watercourses were identified in the vicinity of line replacements, but any potential impacts would be less than significant with implementation of **Mitigation Measure HYD-1.**

Overall, the Proposed Project would not contribute a significant level of cumulative, direct, or indirect impacts to sensitive habitats, special-status species and their habitat, or migratory birds. Additionally, the Proposed Project would not conflict with local plans or policies protecting biological resources. Other cumulatively considerable projects would be required to implement measures to project biological resources consistent with federal, state, and local policies. Therefore, the Proposed Project's contribution to cumulative regional impacts associated with biological resources would be less than significant with implementation of **Mitigation Measures BIO-1** and **HYD-1**.

3.5.4 MITIGATION MEASURES

BIO-1 Nesting Migratory Birds and Other Special-Status Bird Species Protected Under the MBTA

- If construction activities (e.g., building, grading, ground disturbance, removal of vegetation) are scheduled to occur during the general nesting season (February 15 - September 15), a preconstruction nesting bird survey shall be conducted by a qualified biologist throughout accessible areas of suitable habitat within 500 feet of proposed construction activity. The survey shall occur no more than 7 days prior to the scheduled onset of construction. If construction is delayed or halted for more than 7 days, another preconstruction survey for nesting bird species shall be conducted. If no nesting birds are detected during the preconstruction survey, no additional surveys or mitigation measures are required.

- If nesting bird species are observed within 500 feet of construction areas during the survey, appropriate "no construction" buffers shall be established. The size and scale of nesting bird buffers shall be determined by a qualified biologist and shall be dependent upon the species observed and the location of the nest. Buffers shall be established around active nest locations. The nesting bird buffers shall be completely avoided during construction activities. The buffers may be removed when the qualified wildlife biologist confirms that the nest(s) is no longer occupied and all birds have fledged.

3.6 CULTURAL RESOURCES

Information in this section is summarized from a Cultural Resources Survey Report prepared for the Proposed Project (**Confidential Appendix F**).

3.6.1 ENVIRONMENTAL CHECKLIST

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

3.6.2 SETTING

Cultural Context

Prehistoric Setting

The Proposed Project region is known to contain numerous traces of past human activity ranging from early Native American sites and artifacts to the remains of historic-era agricultural activities, and salt production ponds. The San Francisco Bay area was densely populated during the prehistoric period; therefore, archaeological resources are commonly found following chronological periods, which have been defined based on cultural changes in the Proposed Project region: Paleo-Indian (10,000 to 6000 B.C.), Lower Archaic (6000 to 3000 B.C.), Middle Archaic (3000 to 500 B.C.), Upper Archaic (500 B.C. to A.D. 700) and the Emergent Period (A.D. 700 to 1800).

The Middle and Upper Archaic and Emergent Periods are further broken down under the Central California Taxonomic System. These three time periods are well represented in archaeological assemblages in the general vicinity of the Proposed Project. These assemblages are summarized here.

During the Windmiller Pattern (3,000 to 500 B.C.), peoples placed an increased emphasis on acorn use as well as a continuation of hunting and fishing activities. Ground and polished charmstones, twined basketry, baked-clay artifacts, and worked shell and bone were hallmarks of Windmiller culture. Widely

ranging trade patterns brought goods in from the Coast Ranges and trans-Sierran sources as well as closer trading partners. Distinctive burial practices (ventrally extended, oriented westward) identified with the Windmiller Pattern also appeared in the Sierra foothills, indicating possible seasonal migration into the Sierra. Perforated charmstones were associated with some burials, and manos and metates and small mortars were used, but rare.

The Berkeley Pattern (200 B.C. to A.D. 700) exhibited an increase in the use of acorns as a food source than was seen previously in the archaeological record. Distinctive stone and shell artifacts differentiated it from earlier or later cultural expressions. Burials were predominantly placed in a tightly flexed position, and frequently included red ochre. Minimally shaped mortars and pestles were much more prevalent than manos and metates and non-stemmed projectile points became more common. Dating of the Berkeley Pattern varies across central California; in the Stockton region, the Windmiller Pattern continued longer than in other areas, gradually giving way to the changes that marked the Berkeley Pattern. These people combined Windmiller and Berkeley pattern traits, as seen in mortuary practices and the stone tool industry.

The Augustine Pattern (A.D. 700 to 1800) reflected increasing populations resulting from more intensive food procurement strategies, as well as a marked change in burial practices and increased trade activities. Intensive fishing, hunting and gathering, complex exchange systems and a wider variety in mortuary patterns were all hallmarks of this period. Mortars and pestles were more carefully shaped; bow and arrow technology was present. Fishing implements became more common, trade increased and cremation was used for some higher status individuals.

Ethnographic Setting

The Proposed Project area and its vicinity were most recently occupied by Costanoan Indians, a member of the Penutian linguistic family. The word “Costanoan” was derived from a Spanish word meaning coast people or coastal dwellers, who occupied the area roughly from Carquinez Strait and the northern tip of the San Francisco peninsula to the region south of Monterey Bay and east to the Diablo Range. The Costanoans, also known as the Ohlone, entered the Bay Area approximately 1,500 years ago, coming in from the Delta region and displacing earlier Hokan speakers living there. Archaeologically, this coincides with the Lower Emergent period.

At the time of European contact, the project area was within the territory of the Yrgin, a group of 300 to 400 people who held a portion of the East Bay plain in the vicinity of Hayward and San Leandro, east of the interior Diablo Ranges, encompassing the entire San Lorenzo Creek watershed. There is some confusion about whether or not the Yrgin were one of several linguistically-related groups known as the Ohlone, which occupied the bayshore to the south, or were part of the Bay Miwok language family which controlled the northern portion of the bay (Milliken, 1995). The Yrgin and their neighbors were organized as independent triblets; each had one to five semi-permanent villages and numerous temporary camping spots within a territory, some six to ten miles in diameter (Levy, 1978; Milliken, 1995). According to Levy (1978), territorial boundaries among the Ohlone and Bay Miwok were firmly fixed.

The Ohlone were organized as clans, divided into deer and bear moieties. Households consisted of patrilineally extended families ranging from 10 to 15 members. The most common type of house described ethnographically was a dome-shaped structure constructed of willow poles and thatched with

tule, grasses, ferns, or wild alfalfa (Kroeber, 1925; Levy, 1978). Tule was also employed in making clothing and to construct the balsas used to cross San Francisco Bay and maneuver among the marshes and streams surrounding the bay. The balsas were propelled by a double-bladed paddle and were used as transportation and for hunting water fowl and perhaps sea mammals. Sinew-backed bows were made by the Ohlone, and used with arrows tipped by either stone or bone points. Nets were employed to hunt a variety of ducks, quail, rabbits, and, along with basketry traps, to capture the small schooling fish common to the bay-estuary.

Like most California groups, acorns were probably an important part of the Ohlone diet, as were numerous other nut and seed crops which occur on the bay plain and surrounding foothills and canyons. Seasonal burning of the grassland helped to promote the growth of annual seeds and forbs and increased the grazing area for deer, elk, and pronghorn. These large animals were hunted communally or in small groups. Waterfowl were an important part of the diet, often attracted by the use of tule or feather-clad decoys.

Historic Setting

Following the settlement of San Diego in 1769, the Spanish made steady progress in the exploration and settlement of the coastal regions of Alta (Northern) California. By 1776, the Spaniards established the Presidio of San Francisco and by 1798 Mission San Jose. However, the Central Valley would remain largely uncharted in the first decades of Spanish settlement, until the early 19th Century. Between 1804 and 1823 the Spanish made numerous trips into the Central Valley prospecting for new mission sites, attempting to recover stolen horses and cattle, or making punitive raids against natives believed responsible for the theft of livestock.

In 1821, Mexican forces prevailed in their struggle for independence and declared California part of the Mexican empire. This event marked the beginning of the short-lived Mexican Period in California history. In 1833, the formal process of secularizing the missions began and mission lands were divided among the Californios. The grants, known as ranchos, enriched those individuals fortunate enough to receive one, while effectively subjugating the native tribes as an indentured labor force.

James Marshall's gold discovery in Coloma in 1848 led to an influx of miners, prospectors, and settlers looking for their fortunes. Though the Gold Rush was concentrated in the Sierra Nevada foothills, the Bay Area attracted merchants and settlers looking to capitalize upon California's emerging maritime and agricultural economies. The Gold Rush had a large impact on San Francisco as the city became the main port, transportation hub, and commercial center for the new settlers coming to work in the mines. As the city grew, the transportation network throughout the region also improved and expanded.

Before Europeans arrived in the San Francisco Bay, Native Americans harvested salt from natural salt ponds in the South Bay in the vicinity of Hayward and in the marshlands scattered along the shoreline. The Spanish missionaries adopted the native salt harvest practice and used the Ohlone to harvest the salt. Beginning in the 1850s, the Mount Eden Company began settling the Baumberg area, located west of Rancho Arroyo de la Alameda. The Mount Eden area along the Alameda County coast (from San Leandro Creek to Union City) was developed into several small salt producing operations. In 1855 Captain Richard Barron constructed several warehouses along Eden Landing and by the end of the 19th

century had built Barron Salt Works. In 1882-83 approximately a thousand tons of salt were manufactured by the company (Sandoval, 1988).

By the late 19th century, most of the East Bay shoreline south of San Lorenzo Creek had been converted to salt ponds. By 1896, there were numerous salt works in the Baumberg area including Oliver Salt Works, Peterman Salt Works, Barron Salt Works, F. F. Lund Salt Works, and Liquori's Salt Works. By the mid-1920s, Oliver Salt Works had acquired most of the smaller salt works operations. In 1901 the Leslie Salt Refining Company was established; later it would grow to become the largest salt producing company in San Francisco. By 1931, Leslie had absorbed Oliver Salt Works and controlled the salt operations in the Baumberg area.

Record Search

A records search was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System by NWIC staff in February 2021 (NWIC File No.: 20-1284); a second record search (NWIC File No.: 20-1800) was completed when a new segment (S31) was added. The NWIC, an affiliate of the State of California Office of Historic Preservation, is the official state repository of archaeological and historic records and reports for a 15-county area that includes Alameda County, and is housed at Sonoma State University. Additional research was conducted using the files and literature maintained at Analytical Environmental Services (AES).

The NWIC search included each specific water or sewer improvement location plus a 1/8-mile buffer zone. The results indicated that a large number of historic resources were located within the buffer area (i.e. residences, commercial, and public buildings greater than 50 years old). Because none of these resources will be affected by Proposed Project construction or operation, they are not discussed in this report. The only resource of concern consists of archaeological site P-01-12132, a Native American burial discovered during excavation of a utility trench in 2019. This is located within the improvement location areas of S5 and W16; both of these proposed pipeline improvement locations intersect the archaeological site P-01-12132 (**Appendix F**).

Native American Contacts

AES sent a search request to the Native American Heritage Commission (NAHC) on January 7, 2021 and received a reply dated February 1, 2021. In their reply, the NAHC stated that the Sacred Lands File results were positive and recommended contacting Andrew Galvan of the Ohlone Indian Tribe; the NAHC response also included contact information for nine other individuals. The City contacted these ten individuals under the requirements of AB 52 on April 29, 2021 (see **Section 3.19**). Furthermore, the City contacted the Ione Band of Miwok Indians on April 2, 2021, the only Native American tribe which has requested placement on the City's AB 52 notice list. As of this writing, no responses have been received.

Field Survey

Seven improvement locations were identified to be surveyed: S3, S4, S10, S29, W10, W13, and W14. These corresponded to locations where potential open ground might be available for visual inspection, and locations that had not been included in previous archaeological surveys. In addition, areas S5 and W16, where sewer and water line improvements would overlap, were added to the field investigation.

AES Senior Archaeologist Charlane Gross, M.A., RPA completed the archaeological survey on February 25, 2021. The landscape was generally developed with possible exceptions including the locations described here. No new cultural or paleontological resources were identified in any area included in the survey.

Improvement location S3: Improvements will require open cut construction. A large portion of this proposed improvement area was inaccessible as it ran along the side of the Harder Elementary School property, which was completely enclosed by fencing. Those areas along Lander Avenue and Wyeth Road behind the school were entirely hardscaped with roads, sidewalks, and raised median landscaping. The general location, far from an apparent water source, indicates a generally low potential for archaeological resources.

Improvement location S4: Improvements would consist of rehabilitation of an existing line. The entire area was inaccessible as it ran across a series of fenced back yards. The general location, on a moderately steep slope, indicates a low potential for archaeological resources.

Improvement location S10: Improvements would require open cut construction. Improvement location S10 lies along a roadway between a trail head and creek, in an area combining steep slopes (on the creek side of the road) and more level areas near the trail head. There was open ground available for examination, using a single transect on either side of the road, and ground surface visibility was generally very good. No resources were identified, but because part of the pipeline would lie in level ground above a water source, the potential for archaeological resources is moderate.

Improvement location S29: Improvements would include replacement of a wooden retaining wall, regrading a gravel access road cut into a steep hillside, and trenching to replace an existing sewer pipe. Portions of the route were inaccessible as it ran between fenced residential yards. The retaining wall and access road are located in a small park and were examined with a single transect. The remaining area crossed very steep, grass-covered hillsides through residential yards. Ground surface visibility was excellent in the park area but very poor in the grassy areas. Because of the slopes, there is a low potential for archaeological resources.

Improvement location W10: This is the location of a new fire hydrant located next to the Spanish Ranch Mobile Home Park. The entire area is hardscaped, with no natural ground surface visibility. The general location, far from an apparent water source, indicates a generally low potential for archaeological resources.

Improvement location W13: Improvements would require open cut construction. The entire improvement location is within a PG&E utility corridor and is fenced, with no access. From the edges it was apparent that the upper layer of soils has been disturbed, but no examination could be made. The location is moderately close to the edge of San Francisco Bay, indicating a moderate potential for archaeological resources.

Improvement location W14: Improvements would require open cut construction through College Heights Park. The northern and southern ends of the improvement location cross steeply sloped areas, but the central portion of the pipeline upgrade would require trenching through the grassy park. The area was investigated using two transects. Ground surface visibility was approximately five percent on average.

Because of the high slopes and the general distance from a water source, the potential for archaeological resources is low.

Improvement locations S5 and W16: Sewer and water line improvements would overlap in this area. The area is completely hardscaped except for an adjacent graveled parking lot serving the Green Shutter Hotel. The gravel and a wooden fence near the burial area prevented any ground surface visibility. The discovery of a burial with grave goods during utility trenching in 2019 indicates an extremely high potential for similar finds during any construction activities with the added potential for associated archaeological (non-burial) features (**Appendix F**).

Regulatory Context

California Environmental Quality Act

CEQA requires that the effects that a project has on historical and unique archaeological resources be considered (Public Resources Code [PRC] Section 21083.2) for projects financed by or requiring the discretionary approval of public agencies in California. Historical resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance (PRC Section 5020.1). The CEQA Guidelines (Section 15064.5) define three cases in which a property may qualify as a historical resource for the purpose of CEQA review:

- The resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR).
- The resource is included in a local register of historic resources, as defined in PRC Section 5020.1(k), or is identified as significant in a historical resources survey that meets the requirements of PRC Section 5024.1(g) (unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant).

The Lead Agency determines that the resource may be a historical resource as defined in PRC Section 5020.1(j), 5024.1, or significant as supported by substantial evidence in light of the whole record. Section 5024.1 defines eligibility requirements and states that a resource may be eligible for inclusion in the CRHR if it:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2) Is associated with the lives of persons important in our past;
3) Embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or
4) Has yielded, or may be likely to yield, information important in prehistory or history.

Resources must retain integrity to be eligible for listing on the CRHR. Resources that are listed in or eligible for listing in the National Register of Historic Places (NRHP) are considered eligible for listing in

the CRHR, and thus are significant historical resources for the purposes of CEQA (PRC Section 5024.1(d)(1)).

PRC Section 21083.2 governs the treatment of a unique archaeological resource, which is defined as "an archaeological artifact, object, or site about which it can be clearly demonstrated" that it meets any of the following criteria:

- It contains information needed to answer important scientific research questions, and there is a demonstrable public interest in that information.
- It has a special and particular quality such as being the oldest of its type or the best example of its type.
- It is directly associated with a scientifically recognized important prehistoric or historic event or person.

3.6.3 DISCUSSION OF IMPACTS

Question A

Would the project: Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

Less than Significant with Mitigation. Archaeological site P-01-12132, located within the improvement location areas of S5 and W16, a Native American burial with associated artifacts, is located immediately adjacent to the proposed improvement location S5/W16 utility trench. No other known archaeological resources have been identified which would be impacted by construction. The presence of one burial indicates a high likelihood for both other burials and other non-burial features related to a larger archaeological site. Elements of this larger site or other burials could be impacted by construction of the Proposed Project in the S5/W16 utility trench area; resources that could be impacted by the Proposed Project in this area may potentially be eligible for listing on the CRHR under Criterion 4, and therefore this is a potentially significant impact. Implementation of **Mitigation Measure CR-1** presented in **Section 3.6.4** would ensure that monitoring occurs in the vicinity of archaeological site P-01-12131, that any discoveries are treated in the appropriate manner, that a program to determine the eligibility of archaeological site P-01-12131 is completed, and that results are documented. Implementation of **Mitigation Measure CR-1** would reduce potential impacts to archeological site P-01-12132 to a less-than-significant level.

Question B

Would the project: Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less than Significant with Mitigation. Based on the results of the records search, literature review, Native American consultation, and field survey, there are no known cultural resources within the Proposed Project Site except for archaeological site P-01-12131; the potential for unknown CRHR-eligible resources within the Proposed Project Area is considered to vary from moderate to low. Of the Proposed Project improvement locations examined, S3, S4, S29, W10, and W14 have a low potential for

archaeological resources that could be uncovered during project construction due to terrain or distance from a water source, while improvement location S10 and W13 have a moderate potential for archaeological resources that could be uncovered during Project construction. Similarly, the remaining proposed improvement locations are located some distance from a water source, a key indicator of archaeological probability, and therefore are considered to have low potential for discoveries made during construction. However, disturbance of unidentified archeological resources would constitute a significant impact. Implementation of **Mitigation Measure CR-2** presented in **Section 3.6.4** would ensure that inadvertently discovered resources that may be eligible for the CRHR would be investigated and evaluated for eligibility to the CRHR. **Mitigation Measure CR-2** would reduce potential impacts to previously unidentified archaeological resources to a less-than-significant level.

Question C

Would the project: Disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant with Mitigation. There is a high probability that additional human remains associated with archeological site P-01-12131 would be encountered during construction of the Proposed Project at improvement locations S5 and W16, with a lower potential to encounter human remains at the other improvement locations during ground-disturbing activities. The disturbance of human remains would constitute a potentially significant impact. Implementation of **Mitigation Measure CR-1** presented in **Section 3.6.4** would ensure the appropriate treatment of human remains and reduce potential impacts to human remains to a less-than-significant level.

Cumulative Impacts

Less than Significant with Mitigation. Potential cumulative projects in the vicinity of the project area have the potential to impact cultural resources. Archaeological and historic resources are afforded special legal protections designed to reduce the cumulative effects of development. Potential cumulative projects and the Proposed Project would be subject to the protection of cultural resources afforded by the CEQA *Guidelines* Section 15064.5 and related provisions of the PRC. Given the non-renewable nature of cultural resources, any impact to archaeological sites could be considered cumulatively considerable. As discussed above, no known protected archaeological or historic resources were identified within the Proposed Project's Development Footprint. **Mitigation Measures CR-1** and **CR-2** provide for the protection of reasonably predictable as well as unanticipated finds made during ground disturbing activities. With the implementation of these mitigation measures, the Proposed Project's incremental contribution to cumulative impacts to cultural resources is considered to be less than significant.

3.6.4 MITIGATION MEASURES

CR-1 Archaeological Site P-01-12131

All trenching, excavation, pavement or concrete removal, and any other kind of ground disturbing activity within the improvement location S5 and W16 footprint shall be monitored by a qualified professional archaeologist with an expertise in human osteology. Additionally, a representative of the Native American community shall be retained as a cultural monitor. If human remains are uncovered, all project-related ground disturbances within 100 feet of the find shall halt until the county coroner and City have been notified and compliance with Section 15064.5 (e) (1) of the CEQA Guidelines and Health and Safety Code Section 7050.5 shall be required. The coroner shall ask the NAHC to identify a Most Likely

Descendant (MLD), who will work with the construction contractor, City, and the archaeologist to determine an appropriate avoidance or recovery methods or other treatment plan. Project-related ground disturbance in the vicinity of the find shall not resume until the process detailed in CEQA Guidelines Section 15064.5 (e) has been completed.

The City, MLD, and archaeologist shall review the field situation and determine whether further exploration using hand or mechanical excavation is practicable or likely to uncover additional remains or components of an archaeological site; excavations shall be used to determine the CRHR eligibility of archeological site P-01-12131 and mitigate construction impacts; the results shall be documented in a report that meets current professional standards. In the event that human remains are encountered during construction activities at other improvement locations associated with the Proposed Project, as above, the City shall comply with Section 15064.5 (e) (1) of the CEQA Guidelines and Health and Safety Code Section 7050.5. All project-related ground disturbance within 100 feet of the find shall be halted until the county coroner has been notified. If the coroner determines that the remains are Native American, the coroner will notify the NAHC and/or the previously identified MLD, who will consult with the City and an archaeologist to design a program of avoidance, evaluation, and recovery which shall be implemented prior to resuming construction activities in the vicinity of the find.

CR-2 Inadvertent Resource Discovery

In the event of any inadvertent discovery of archaeological, all such finds shall be subject to 36 CFR 60.4, PRC 21083.2, and CEQA *Guidelines* § 15064.5. Procedures for inadvertent discovery include the following:

- All work within a 100-foot radius of the find shall be halted, and the City shall be notified. Workers should avoid altering the materials until a professional archaeologist can evaluate the significance of the find in accordance with CRHR criteria. The City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement.
- The qualified archeologist shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to, culturally appropriate temporary and permanent treatment, which may include avoidance of cultural resources, in-place preservation, and/or re-burial on project property so the resource(s) are not subject to further disturbance in perpetuity. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center.
- If the find represents a prehistoric resource, representatives of the Native American community shall be consulted as well under the provisions of AB 52 (**Section 3.19**). Construction shall not resume in the vicinity of the find until consultation is concluded or until a reasonable good-faith effort has failed to provide a resolution to further impacts that is acceptable to the consulting parties.

3.7 ENERGY

3.7.1 ENVIRONMENTAL CHECKLIST

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

3.7.2 SETTING

Regulatory Context

Warren-Alquist Act

The 1974 Warren-Alquist Act (PRC § 25000 et seq.) established the California Energy Commission (CEC) and created a State policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Legislature continues to amend the Act to address pressing energy needs and issues, and the CEC publishes an updated version of the Act each year. The 2019 edition of the Warren-Alquist Act was published in February of 2019.

State of California Integrated Energy Policy Report

Senate Bill (SB) 1389 requires the CEC to adopt an Integrated Energy Policy Report (IEPR) every two years. The IEPR contains an assessment of major energy trends and issues facing the electricity, natural gas, and transportation fuel sectors within California. The Report provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the economy of California; and protect public health and safety.

The IEPR calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the IEPR identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for Zero Emission Vehicles and their infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

The Draft 2019 IEPR was submitted for public comment on November 8, 2019 and covers a broad range of topics including decarbonizing buildings, integrating renewables, energy efficiency, energy equity, electricity reliability, climate adaptation activities for the energy sector, a natural gas assessment, a transportation energy demand forecast, and the California Energy Demand Forecast. The 2019 IEPR provides the results of the CEC assessments on a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, clean energy, air quality, and other environmental goals while maintaining reliability and controlling costs.

Assembly Bill 1007 (Pavley)-Alternative Fuel Standards

AB 1007, (Pavley, Chapter 371, Statutes of 2005) required the CEC to prepare a State plan to increase the use of alternative fuels in California; therefore, the CEC prepared the State Alternative Fuels Plan in partnership with CARB and in consultation with other local, State, and federal agencies. The final State Alternative Fuels Plan, published in December 2007, attempts to achieve an 80 percent reduction in GHG emissions associated with personal transportation, even as the population of California increases.

3.7.3 DISCUSSION OF IMPACTS

Question A

Would the project: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Construction

Less than Significant. The Proposed Project involves replacing and upgrading pipeline segments and is not anticipated to use significant amounts of electricity during the construction or operational phase. Construction of the Proposed Project would consume energy primarily from fuel consumed by construction vehicles and equipment. Fossil fuels used for construction vehicles and other equipment would be used during site clearing, grading, and paving. Fuel consumed during construction would be temporary in nature and would not represent a significant demand on available fuel. There are no unusual characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or State.

Additionally, Project-related design features and mitigation measures would provide fuel reduction during construction. Overall, fuel reductions are difficult to quantify; however, certain air quality emission reduction measures would also reduce fuel use during construction of the Proposed Project. **Mitigation Measure AQ-2** would reduce fuel consumption by requiring the contractor to minimize equipment idling time. Additionally, all diesel-fueled construction vehicles would be required to meet the latest emissions standards. These measures would further reduce fuel use during all stages of construction and avoid the wasteful, inefficient, or unnecessary consumption of fuel energy. Therefore, construction of the Proposed Project would not result in inefficient, wasteful, or unnecessary consumption of fuel energy as it would comply with relevant standards.

Operation

Less than Significant. As described in **Section 2.4.6**, the Proposed Project would be designed and constructed to comply with the City Department of Public Works Standards. Additionally, the Proposed Project does not include any operational components that would increase energy use above existing

conditions. Accordingly, the Proposed Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, this impact would be less than significant.

Question B

Would the project: Would the project: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. As described above, the Proposed Project would not require significant amounts of energy and would comply with applicable state and local energy standards, such as the City Municipal Code. Therefore, the Proposed Project would not conflict with a State or local plan for renewable energy or energy efficiency. No impact would occur.

Cumulative Impacts

Less than Significant. As discussed above, several aspects of the Proposed Project would help manage the amount and efficiency of fuel energy consumption and would ensure that the related consumption is not inefficient, wasteful or unnecessary, or place a significant demand on regional energy supplies. Therefore, impacts to energy resources resulting from the Proposed Project, combined with other past, present, or reasonably foreseeable future projects, would not result in a cumulative impact to which the proposed project would have a cumulatively considerable contribution.

3.7.4 MITIGATION MEASURES

None required.

3.8 GEOLOGY/SOILS

3.8.1 ENVIRONMENTAL CHECKLIST

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

3.8.2 SETTING

Regulatory Context

Federal Earthquake Hazards Reduction Act

In October 1997, the U.S. Congress passed the National Earthquake Hazards Reduction (NEHR) Act to "reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program." To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). This program was significantly amended in November 1990 by the NEHR Act, which refined the description of agency responsibilities, program goals, and objectives.

NEHRP's mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities, improvement of building codes and land use practices, risk reduction through post-earthquake investigations and education, development and improvement of design and construction techniques, improvement of mitigation capacity, and accelerated application of research results. The NEHR Act designates Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Other NEHR Act agencies include the National Institute of Standards and Technology, National Science Foundation, and the U.S. Geological Survey (USGS).

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed by the California Legislature to mitigate the hazard of surface faulting to structures. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. Local agencies must regulate most development in fault zones established by the State Geologist. Before a project can be permitted in a designated Alquist-Priolo Fault Study Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults.

California Seismic Hazards Mapping Act

The California Seismic Hazards Mapping Act of 1990 (PRC §§ 2690–2699.6) addresses seismic hazards other than surface rupture, such as liquefaction and induced landslides. The Seismic Hazards Mapping Act specifies that the lead agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

National Pollutant Discharge Elimination System Permit

The SWRCB administers regulations and permitting for the USEPA (55 CFR 47990) for pollution generated from stormwater under the NPDES. There are nine RWQCBs that implement the SWRCB's jurisdiction and require that an operator of any construction activities with ground disturbances of 1.0 acre or more obtain a General Permit through the NPDES Stormwater Program. The Project Area is within the jurisdiction of the SFBRWQCB. The Construction General Permit requires that the implementation of BMPs be employed to reduce sedimentation into surface waters and control erosion. The preparation of a SWPPP addresses control of water pollution that includes the effects of sediments in the water during

construction activities. These elements are further explained within **Section 3.11**, **Hydrology and Water Quality**.

City of Hayward Municipal Code

Section 10-8.10 of the City of Hayward's Municipal Code provides provisions for acquiring grading and clearing permits for any activities that involve the excavation of soil for the installation, removal, or repair of any underground infrastructure.

Environmental Setting

Regional Geology

The Project Area is located near the eastern boundary of the Coast Ranges geomorphic province (Province) of California, near the margin of the Great Valley Province (CGS, 2002). The Province lies between the Pacific Ocean and the Great Valley of California and stretches from the Oregon border to the north and continues south to the Santa Ynez River near Santa Barbara. The northern and southern portions of the Province are divided by a depression containing the Bay. Much of the Province is characterized by northwest trending mountain ranges, ridges, and valleys composed of the Franciscan Complex.

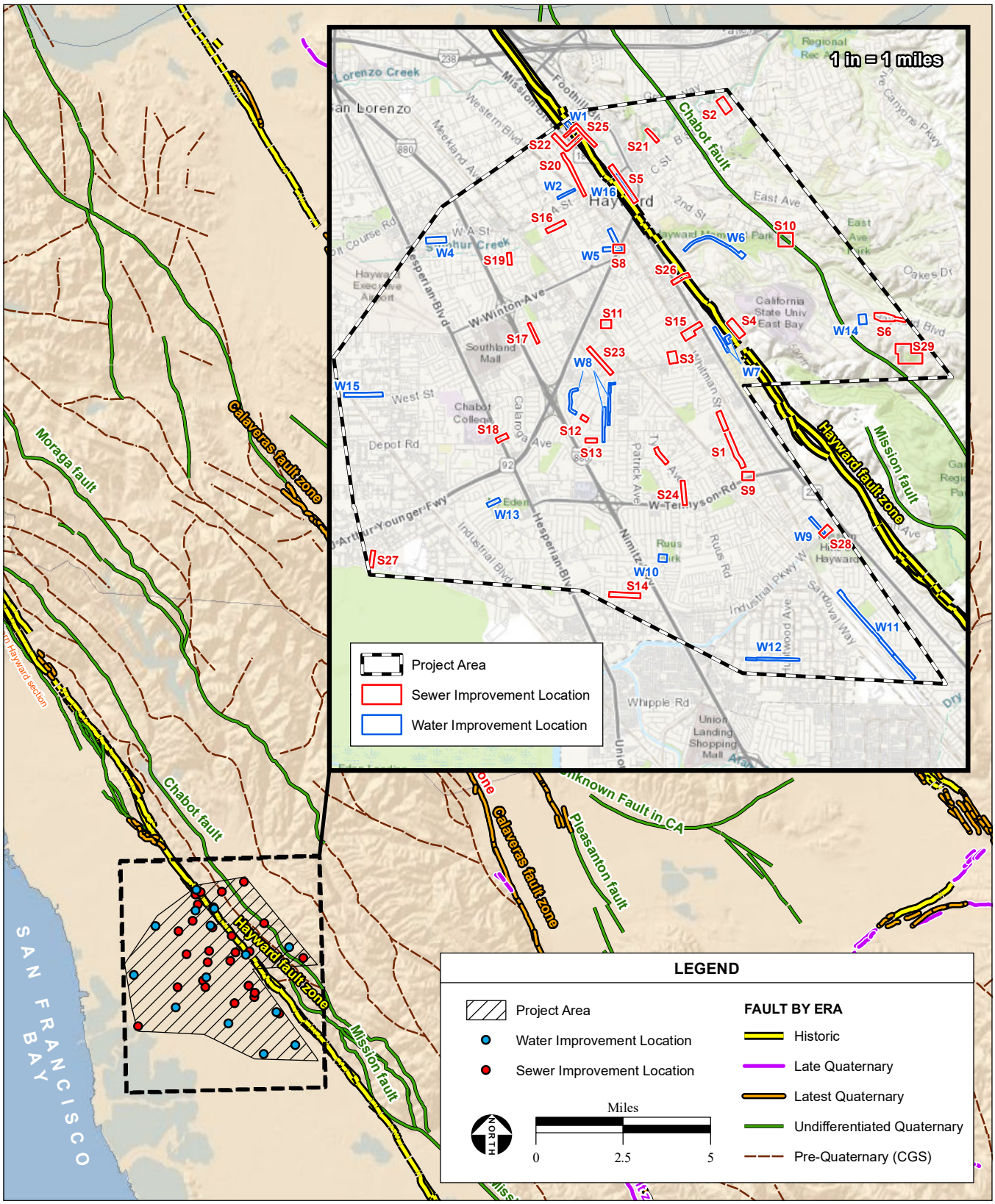
Site Topography

The topography of the Project Area exhibits the characteristics of both the uplands in the coastal range and the tidal flats of the Bay. Elevations in the Project Area range from approximately 10 feet above mean sea level along the western border of the Project Area, to approximately 910 feet above mean sea level along the uplands which form the eastern border of the Project Area. Slopes range from relatively flat in the eastern portion of the Project Area to over 30 percent along the steep hillsides of the western portion of the Project Area.

Regional Seismicity and Fault Zones

The City is located in a relatively high seismic hazard area (USGS, 2018). The San Francisco Bay Area is recognized as one of the more seismically active regions of California and the Project Area will likely experience ground shaking due to large earthquakes in the future. The combined probability of a major quake in the Bay Area is 72 percent over the next 30 years (USGS, 2021a). Ground shaking severity in the Project Area would depend on the distance from the fault rupture, the magnitude of the earthquake, and the site-specific soil conditions.

The Alquist-Priolo Act defines active faults as those that have shown seismic activity during the Holocene period, approximately the past 11,000 years, while potentially active faults are those that have shown activity within the Quaternary period, or the past 1.8 million years (CGS, 2019). As shown in **Figure 3-1**, the Project Area is intersected by two faults: the Hayward Fault Zone (Historic, past 200 years) and the Chabot Fault (Undifferentiated Quaternary, past 1.8 million years).



SOURCE: USGS Quaternary Fault and Fold Database of the U.S., 2018; California Geologic Survey, 2010; AES, 6/21/2021

Figure 3-1

Regional Fault Locations

Soils

A custom soil resource report was queried for the Project Area through the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS, 2021). Furthermore, the Geotechnical Desktop Study (**Appendix C**) provides an analysis of the soils and related geohazard mapping of the Project Area. Results indicated that the Project Area includes multiple soil types, including well-drained Botella loam, poorly drained Clear Lake clay, well-drained Danville silty clap loam, and well-drained Rincon clay loam. The Project Area is underlain by late Holocene alluvial deposits and estuarine mud deposits (Young Bay Mud), which are found in area closer to the San Francisco Bay and are characterized by highly expansive clay soils with relatively low shear strength. Other clay soils within the Project Area, other than Bay Mud, are typically over-consolidated and have a higher undrained shear strength and are less susceptible to settlement.

A soil's rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil, while a soil's rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. All of the soil types in the Project Area have low-to-high steel and concrete corrosion ratings (NRCS, 2021; NRCS, 2021b). The Proposed Project would utilize asphaltic coatings and polyethylene encasement of metallic DIP for corrosion protection.

Liquefaction is the sudden loss of soil strength caused by seismic forces acting on water-saturated, granular soil, leading to a "quicksand" condition generating various types of ground failure. Soils comprised of sand and sandy loams that are in areas with high groundwater tables or high rainfall are subject to liquefaction. The majority of the soils existing at each improvement location are well drained and the groundwater table is relatively deep, which suggests a low risk of liquefaction in these areas. The Geotechnical Desktop Study (**Appendix C**) noted that improvement locations were located in areas of very low to moderate susceptibility to liquefaction. **Appendix C** includes a NRCS soil map, as well as a liquefaction susceptibility map. Areas that are poorly drained are associated with a shallower groundwater table. Groundwater depths vary across the City (as shallow as less than five feet to more than 50 feet) and should be expected to be shallower for the improvement locations closer to the San Francisco Bay; groundwater levels likely vary due to seasonal rainfall and tidal fluctuations (**Appendix C**).

The soils associated with the various improvement locations have a plasticity index between five and thirty-eight percent. Those soils with a plasticity index above fifteen percent have the potential to be expansive. Bay Mud, most likely affecting improvement location S27, is characterized by highly expansive clay soil with low shear strength (**Appendix C**).

Question A

Would the project: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving ((i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42; ii) Strong seismic ground shaking; iii) Seismic-related ground failure, including liquefaction; iv) Landslides?

Less than Significant. As shown in **Figure 3-1**, the Project Area is intersected by two potentially active faults: the Hayward Fault Zone (Historic, past 200 years) and the Chabot Fault (Undifferentiated Quaternary, past 1.8 million years). Several improvement locations are located on or in the vicinity of these faults, as shown on **Figure 3-1** and described in **Table 2-1**. Improvement locations are located in very low to moderate susceptibility to liquefaction (**Appendix C**; CGS, 2021). In the event of an earthquake or fault rupture, pipelines could potentially be affected or rupture in severe scenarios. However, as described in **Section 2.4.6**, for any pipeline improvement located directly on or adjacent to a potentially active fault, ERDIP and/or HDPE would be utilized to provide resistance to breakage in the event of an earthquake, lateral spreading, or fault rupture. Polyethylene pipe is known to perform well in shifting soils and in earthquake-prone areas, and allows bending without the need for excessive fittings. Furthermore, all pipelines would be upgraded and/or installed in compliance with City standards and design criteria. Incorporation of design elements as part of the Proposed Project would reduce potential impacts to less than significant.

Question B

Would the project: Result in substantial soil erosion or the loss of topsoil?

Less than Significant with Mitigation. Construction of the Proposed Project would involve minor grading and earth moving activities, as well as construction of project components. As described in **Section 2.4.7**, both trenchless and open trench methods would be employed. Construction would be linear in nature and would result in the temporary disturbance of soil and would expose disturbed areas to potential storm events, which could generate accelerated runoff, localized erosion, and sedimentation. Construction activities could exacerbate soil erosion and result in the loss of topsoil; this is a potentially significant impact. Implementation of **Mitigation Measure HYD-1** would require construction activities to employ erosion and sediment control BMPs, as discussed in **Section 3.11**. This includes limiting ground disturbance areas, restoring disturbed areas to pre-construction contours, erosion control measures, and revegetation, as necessary. Implementation of **Mitigation Measure HYD-1** would ensure that potential impacts resulting from soil erosion or the loss of topsoil would be reduced to a less-than-significant level.

Question C

Would the project: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant. As described above, because the Project Area is intersected by two potentially active faults, the soil in which the pipeline improvements would be installed, could potentially become unstable in the event of an earthquake. The improvement locations within the Project Area primarily consist of soils that are well drained and the groundwater table is relatively deep, which suggests a low risk of liquefaction in these areas. Location S27 is the closest location to the San Francisco Bay and may be affected by a higher groundwater table and potentially expansive clay soil with low shear strength. However, as described in **Section 2.4.4**, pipelines would be installed and improved with geotechnical limitations in mind, such as the use of dewatering in areas with higher groundwater tables. Although some of the soils within the Project Area may become unstable, for any pipeline improvement located directly on or adjacent to a potentially active fault, ERDIP and/or HDPE would be utilized to provide

resistance to breakage in the event of an earthquake, lateral spreading, or fault rupture. Furthermore, all pipelines would be upgraded and/or installed in compliance with City standards and design criteria. Because pipelines would be located underground, the Proposed Project is not likely to result in or be affected by on- or off-site landslides, lateral spreading, of collapse. Incorporation of design elements as part of the Proposed Project would reduce potential impacts to less than significant.

Question D

Would the project: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less than Significant. As described above, the improvement locations within the Project Area consist of soils that are potentially expansive and susceptible to liquefaction. However, as described in **Section 2.4.6**, for any pipeline improvement located directly on or adjacent to a potentially active fault, ERDIP and/or HDPE would be utilized to provide resistance to breakage in the event of an earthquake, lateral spreading, or fault rupture. Furthermore, all pipelines would be upgraded and/or installed in compliance with City standards and design criteria. Therefore, pipeline segments would be designed specifically to withstand potential unstable or expansive soils. Incorporation of design elements as part of the Proposed Project would reduce potential impacts to less than significant.

Question E

Would the project: Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Project Area consists of various soil types, the majority of which are suitable for on-site wastewater disposal systems. However, no new onsite wastewater disposal system is being proposed. No impact would occur.

Question F

Would the project: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation. As described in **Section 3.6.2**, no paleontological resources were observed within the Project Area. However, there is always the potential, however remote, that previously unknown unique paleontological resources or sites could be encountered during subsurface construction activities. This is a potentially significant impact. In the event that paleontological resources or sites are found, **Mitigation Measure GEO-1** would ensure that the Proposed Project would not directly or indirectly destroy a unique paleontological resource. Furthermore, no unique geological features are known to exist within the vicinity of the improvement locations. After implementation of **Mitigation Measures GEO-1**, impacts to paleontological resources would be less than significant.

Cumulative Impacts

Less than Significant with Mitigation. Implementation of the Proposed Project and other potential cumulative projects in the region, including growth resulting from build-out of the City and County General Plans could result in increased erosion and soil hazards, expose additional structures and people to

seismic hazards, and potentially damage unique paleontological resources or sites. These impacts are mitigable with implementation of construction-period erosion control programs, standard seismic safety measures incorporated in building design, and procedures for inadvertent paleontological discoveries. The Proposed Project would incorporate **Mitigation Measures HYD-1** and **GEO-1** to ensure a less than significant effect; therefore, the Proposed Project's contribution to potential cumulative impacts be less than significant.

3.8.3 MITIGATION MEASURES

GEO-1 Paleontological Resources

In the event of any inadvertent discovery of paleontological resources, all work within a 50-foot radius of the find shall be halted and the City shall be notified. Workers shall avoid altering the materials until a professional paleontologist can evaluate the significance of the find and make recommendations to the County on the measures that shall be implemented to protect the discovered resources.

3.9 GREENHOUSE GAS EMISSIONS

3.9.1 ENVIRONMENTAL CHECKLIST

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

3.9.2 SETTING

Regulatory Setting

The following regulatory background gives context to the issues of climate change and importance to reducing GHGs in California.

State and Local

Assembly Bill 1493

Signed by the California Governor in 2002, AB 1493 requires that CARB adopt regulations requiring a reduction in GHG emissions emitted by cars in the State. AB 1493 is intended to apply to 2009 and newer vehicles. On June 30, 2009, the USEPA granted a necessary CAA waiver for California to implement AB 1493.

Executive Order S-3-05

Executive Order (EO) S-3-05 was signed by the California Governor on June 1, 2005 and established the following statewide emission reduction targets:

- Reduce GHG emissions to 2000 levels by 2010,
- Reduce GHG emissions to 1990 levels by 2020, and
- Reduce GHG emissions to 80 percent below 1990 levels by 2050.

EO S-3-05 created a Climate Action Team (CAT) headed by the California Environmental Protection Agency that included several other State agencies. The CAT is tasked by EO S-3-05 with outlining the

effects of climate change on California and recommending an adaptation plan, as well as creating a strategy to meet the emission reduction targets.

California Global Warming Solutions Act of 2006 (AB-32)

Signed by the California Governor on September 27, 2006, AB 32 codifies a key requirement of EO S-3-05, specifically the requirement to reduce GHG emissions in California to 1990 levels by 2020. AB 32 tasks CARB with monitoring State sources of GHGs and designing emission reduction measures to comply with emission reduction requirements. However, AB 32 also continues the efforts of the CAT to meet the requirements of EO S-3-05 and states that the CAT should coordinate overall State climate policy.

To accelerate the implementation of emission reduction strategies, AB 32 requires that CARB identify a list of discrete early action measures that can be implemented relatively quickly. In October 2007, CARB published a list of early action measures that it estimated could be implemented and would serve to meet about 25 percent of the required 2020 emissions reductions (CARB, 2007). To assist CARB in identifying early action measures, the CAT published a report in April 2007 that updated their 2006 report and identified strategies for reducing GHG emissions (USEPA, 2007). In its October 2007 report, CARB cited the CAT strategies and other existing strategies that can be utilized to achieve the remainder of the emissions reductions (CARB, 2007). AB 32 requires that CARB prepare a comprehensive “scoping plan” that identifies all strategies necessary to fully achieve the required 2020 emissions reductions. Consequently, in December 2008, CARB released its scoping plan to the public; the plan was approved by CARB on December 12, 2008. An update to the Climate Change Scoping Plan occurred on May 22, 2014, and included new strategies and recommendations to ensure reduction goals of near-term 2020 are met with consideration of current climate science.

A second update to the Climate Change Scoping Plan was adopted on December 14, 2017. The 2017 Scoping Plan Update addresses the 2030 target established by SB 32, as discussed below, and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG by 2030 compared to 1990 levels. The key programs that the 2017 Scoping Plan Update builds on include the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, an increase in the use of renewable energy in the State, and a reduction of methane emissions from agricultural and other wastes (CARB, 2017).

Executive Order S-01-07

EO S-01-07 was signed by the California Governor on January 18, 2007. It mandates a State-wide goal to reduce the carbon intensity of transportation fuels by at least 10 percent by 2020. This target reduction was identified by CARB as one of the AB 32 early action measures in the October 2007 report (CARB, 2007).

Senate Bill 375

SB 375 was approved by the California Governor on September 30, 2008. SB 375 provides for the creation of a new regional planning document called a “Sustainable Communities Strategy” (SCS). An SCS is a blueprint for regional transportation infrastructure and development that is designed to reduce GHG emissions from cars and light trucks to target levels set by CARB for 18 regions throughout California. Each of the various metropolitan planning organizations must prepare an SCS that is included

in their respective regional transportation plan. An SCS influences transportation, housing, and land use planning. CARB then determines whether the SCS will achieve regional GHG emissions reduction goals.

Senate Bill 605

On September 21, 2014, the California Governor signed SB 605 that requires CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants in the State no later than January 1, 2016. As defined in the statute, short-lived climate pollutant means "an agent that has a relatively short lifetime in the atmosphere, from a few days to a few decades, and a warming influence on the climate that is more potent than that of carbon dioxide." SB 605, however, does not prescribe specific compounds as short-lived climate pollutants or add to the list of GHGs regulated under AB 32. In developing the strategy, CARB completed an inventory of sources and emissions of short-lived climate pollutants in the State based on available data, identified research needs to address any data gaps, identified existing and potential new control measures to reduce emissions, and prioritized the development of new measures for short-lived climate pollutants that offer co-benefits by improving water quality or reducing other air pollutants that impact community health and benefit disadvantaged communities.

The final strategy released by CARB in March 2017 focuses on methane (CH_4), black carbon, and fluorinated gases, particularly hydrofluorocarbons (HFC), as important short-lived climate pollutants. The final strategy recognizes emission reduction efforts implemented under AB 32 (e.g., refrigerant management programs) and other regulatory programs (e.g., in-use diesel engines, solid waste diversion). The measures identified in the final strategy and their expected emission reductions will feed into the update to the CARB Scoping Plan.

Executive Order B-30-15

EO B-30-15 was signed by the California Governor on April 29, 2015. It sets interim GHG targets of 40 percent below 1990 by 2030, to ensure California will meet its 2050 targets set by EO S-3-05. It also directs the CARB to update the Climate Change Scoping Plan. The 2030 Target Scoping Plan Concept Paper was released on June 17, 2016.

Senate Bill 350

SB 350 codifies the GHG targets for 2030 set by EO B-30-15. To meet these goals, SB 350 also raises the California RPS from 33 percent renewable generation by 2020 to 50 percent renewable generation by December 31, 2030.

Senate Bill 32

Additionally, SB 32, signed in 2016, further strengthens AB 32 with goals of reducing GHG emissions to 40 percent below 1990 levels by 2030. Based on GHG emissions inventory data compiled by CARB through 2017 and the emission limit of 431 million metric tons (MT) of carbon dioxide equivalents (CO_2e) established in the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report, California emission reduction goals for near-term 2020 will be met.

California Renewable Portfolio Standards - SB 1078, SB 350, and SB 100

The California RPS program was established in 2002 by SB 1078 and requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide a certain percentage of

their supply from renewable sources. The initial requirement was for at least 20 percent of electricity retail sales to be served by renewable resources by 2017. The RPS program was accelerated in 2015 with SB 350 which mandated a 50 percent RPS by 2030. In 2018, SB 100 was signed into law, which again increased the RPS to 60 percent by 2030 and requires all electricity in the State to come from carbon-free resources by 2045.

California Green Building Standards Code

CALGreen requires that at least 50 percent of the weight of non-hazardous job site debris generated by new construction be recycled, reused, or otherwise diverted from landfill disposal. CALGreen requires submission of plans and verifiable post-project documentation to demonstrate compliance.

CEQA Guidelines

Under CEQA, GHG impacts are exclusively cumulative impacts because no single project could, by itself, result in a substantial change in climate (CEQA *Guidelines* § 15064.4(b)). Therefore, the evaluation of cumulative GHG impacts presented below evaluates whether the Proposed Project would make a considerable contribution to cumulative climate change effects. Additionally, BAAQMD has not established quantitative thresholds relative to GHG emissions.

Plan Bay Area 2040

The ABAG and the MTC are jointly responsible for regional planning for the nine county, 101 city, Bay Area. ABAG/MTC jointly adopted a second Regional Transportation Plan/SCS in 2017 known as Plan Bay Area 2040, which serves as a limited and focused update to the previous SCS issued by ABAG/MTC and maintains a similar set of land use and transportation strategies. The regional GHG reduction targets for the ABAG/MTC region beginning on October 1, 2018, are 10 percent per capita passenger vehicle GHG emission reductions by 2020 and 19 percent per capita passenger vehicle GHG emission reductions by 2035 from 2005 levels.

City of Hayward Climate Action Plan

Hayward's CAP was adopted by the Hayward City Council on July 28, 2009 and incorporated into the City's General Plan in 2014. The purpose of the CAP is to make Hayward a more environmentally and socially sustainable community. The overall objective of the CAP is to reduce Hayward's GHG emissions by:

- 20 percent below 2005 baseline levels by 2020,
- 62.7 percent below 2005 baseline levels by 2040, and
- 82.5 percent below 2005 baseline levels by 2050.

In June 2020, these goals were revised to reflect California's goal of achieving economy-wide carbon neutrality by 2045. The City's current goals are to reduce GHG emissions by:

- 30 percent below 2005 levels by 2025,
- 55 percent below 2005 levels by 2030, and
- 100 percent below 2005 levels (i.e., carbon neutrality) by 2045.

The CAP includes GHG reduction strategies and actions relating to transportation, land use, energy, solid waste, carbon sequestration, climate change adaptation, and community engagement. CAP policies applicable to the Proposed Project include:

- PFS-7.12, *Construction and Demolition Waste Recycling*, requires new development to salvage or recycle asphalt and concrete and all other non-hazardous construction and demolition materials to the maximum extent practicable.

Environmental Setting

"Global warming" and "climate change" are common terms used to describe the increase in the average temperature of the earth's near-surface air and oceans since the mid-20th century. Natural processes and human actions have been identified as impacting climate. The IPCC has concluded that variations in natural phenomena such as solar radiation and volcanoes produced most of the warming from pre-industrial times to 1950 and had a small cooling effect afterward. Since the 19th century however, increasing GHG concentrations resulting from human activity such as fossil fuel combustion, deforestation, and other activities are believed to be a major factor in climate change. GHGs in the atmosphere naturally trap heat by impeding the exit of solar radiation that has hit the earth and is reflected back into space—a phenomenon sometimes referred to as the "greenhouse effect." Some GHGs occur naturally and are necessary to keep the earth's surface inhabitable. However, increases in the concentrations of these gases in the atmosphere during the last 100 years have trapped solar radiation and decreased the amount that is reflected back into space, intensifying the natural greenhouse effect and resulting in the increase of global average temperature.

Carbon dioxide (CO_2), CH_4, nitrous oxide (N_2O), HFC, perfluorocarbons (PFC), and sulfur hexafluoride (SF_6) are the principal GHGs. When concentrations of these gases exceed historical concentrations in the atmosphere, the greenhouse effect is intensified. CO_2, CH_4, and N_2O occur naturally and are also generated through human activity. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing, natural gas leaks from pipelines and industrial processes, and incomplete combustion associated with agricultural practices, landfills, energy providers and other industrial facilities. Other human-generated GHGs include fluorinated gases such as HFCs, PFCs, and SF_6, which have much higher heat-absorption potential than CO_2, and are byproducts of certain industrial processes.

CO_2 is the reference gas for climate change, and is the GHG emitted in the highest volume. The effect that each GHG has on global warming is the product of the mass of their emissions and their GWP. GWP indicates how much a gas is predicted to contribute to global warming relative to how much warming would be predicted to be caused by the same mass of CO_2. For example, CH_4 and N_2O are substantially more potent GHGs than CO_2, with GWPs of approximately 30 and approximately 275 times that of CO_2, which has a GWP of 1.

In emissions inventories, GHG emissions are typically reported as MT of CO_2e. CO_2e is calculated as the product of the mass emitted by a given GHG and its specific GWP. While CH_4 and N_2O have much higher GWPs than CO_2, CO_2 is emitted in higher quantities and accounts for the majority of GHG emissions in CO_2e, both from commercial developments and human activity.

3.9.3 DISCUSSION OF IMPACTS

Given the global nature of climate change impacts, individual project impacts are most appropriately addressed in terms of the incremental contribution to global cumulative impacts. This approach is consistent with the view articulated by the IPCC *Change Fifth Assessment Report* (IPCC, 2014). Therefore, this analysis is of the cumulative impacts related to climate change.

Methodology

The Proposed Project's short-term construction-related GHG emissions were estimated using the RCEM. The model quantifies GHG emissions from construction (including vehicle use), as well as indirect GHG emissions, such as GHG emissions from energy use, solid waste, vegetation planting and/or removal, and water use. The site-specific inputs and assumptions used for the purposes of GHG emissions modeling are listed in **Section 3.4.3**.

The BAAQMD has not developed quantitative GHG thresholds for project level analysis. For this analysis, predicted project-related GHG emissions were compared to the BAAQMD's operational GHG threshold of 1,100 MT of CO_2e (BAAQMD, 2017b). The quantitative thresholds developed by BAAQMD were formulated based on AB 32 and California Climate Change Scoping Plan reduction targets. Thus, a project cannot exceed a numeric BAAQMD threshold without also conflicting with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs (the state Climate Change Scoping Plan). Therefore, if a project exceeds a numeric threshold and results in a significant cumulative impact, it would also result in a significant cumulative impact with respect to plan, policy, or regulation consistency, even though the project may incorporate measures and have features that would reduce its contribution to cumulative GHG emissions.

Questions A and B

Would the project: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Construction

Construction of the Proposed Project would emit GHG emissions from the combustion of diesel fuel in heavy equipment. The BAAQMD has not established a quantitative significance threshold for evaluating construction-related emissions; however, the BAAQMD does recommend quantifying and disclosing construction-related GHG emissions. Therefore, construction-related GHG emissions were quantified for informational purposes. As shown in **Table 3-6**, emissions generated by construction of the Proposed Project would be approximately 2,312 MT of CO2e, or approximately 77 MT of CO2e per year when amortized over a 30-year period (i.e., the lifetime of the project).

Table 3-6. Construction GHG Emissions

Source	GHG
	MT of CO_2e
Water Line Improvements	1,049
Sewer Line Improvements	1,263
Construction-Related GHG Emission	**2,312**
Amortized over Life of the Project[1]	***77***

[1] Life of the project is estimated to be 30 years based on air district recommendations (SCAQMD, 2008).
Source: **Appendix D**

Operation

As described above in **Section 3.4.3**, operation of the Proposed Project would require maintenance of water and sewer pipelines and appurtenant structures. However, maintenance activities would result in a negligible increase in additional traffic, and the resulting additional trips added to the roadway network would not cause an exceedance of the BAAQMD GHG thresholds.

Findings

Less than Significant. As shown in **Table 3-6**, the combined amortized construction GHG emissions would be 77 MT per year for the life of the project, which is substantially less than the BAAQMD GHG threshold of 1,100 MT. Additionally, the City's CAP Policy PFS-7.12, Construction and Demolition Waste Recycling, requires new development to salvage or recycle asphalt and concrete and all other non-hazardous construction and demolition materials to the maximum extent practicable. In accordance with CALGreen standards, the Proposed Project would be required to divert at least 65 percent of its construction waste. Therefore, because the Proposed Project would not exceed numeric GHG thresholds and is consistent with applicable policies of the City's CAP, the Proposed Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. The Proposed Project's contribution to cumulative effects associated with climate change is considered less than significant.

Cumulative Impacts

Under CEQA, GHG impacts are exclusively cumulative impacts because no single project could, by itself, result in a substantial change in climate (CEQA Guidelines § 15064.4(b). Therefore, the evaluation of GHG impacts presented above evaluates whether the Proposed Project would make a considerable contribution to cumulative climate change effects.

3.9.4 MITIGATION MEASURES

None required.

3.10 HAZARDS AND HAZARDOUS MATERIALS

3.10.1 ENVIRONMENTAL CHECKLIST

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

3.10.2 SETTING

Regulatory Context

Definition of Hazardous Material

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, State, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Title 22 of the CCR as:

> *A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed" (CCR, Title 22, Section 66260.10).*

U.S. Environmental Protection Agency

The USEPA administers numerous statutes pertaining to human health and the environment. The USEPA regulates toxic air contaminants through its implementation of the CAA. Although the CAA covers a range of air pollutants, Section 112(r) specifically covers "extremely hazardous materials" which include acutely toxic, extremely flammable, and highly explosive substances. Section 112(r) (referred to as the USEPA's Risk Management Plan) requires facilities involved in the use or storage of extremely hazardous materials to implement a Risk Management Plan (RMP). A RMP requires a detailed analysis of potential accident factors present at a facility and requires the implementation of mitigation measures designed to reduce the identified accident potential.

The USEPA also regulates the land disposal of hazardous materials through the Resource Conservation and Recovery Act (RCRA). Under RCRA, the USEPA regulates the activities of waste generators, transporters, and handlers (any individual who treats, stores, and/or disposes of a designated hazardous waste). RCRA further requires the tracking of hazardous waste from its generation to its final disposal through a process often referred to as the "cradle-to-grave" regulation. The "cradle-to-grave" regulation requires detailed documentation and record keeping for hazardous materials generators, transporters, and/or handlers in order to ensure proper accountability for violations (USEPA, 2020).

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act provides a federal fund to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through various enforcement mechanisms, the USEPA obtains private party cleanup orders and recovers costs from financially viable individuals and companies once a response action has been completed. Uncontrolled or abandoned hazardous waste site identification, monitoring, and response activities in states are coordinated though the state environmental protection or waste management agencies.

Federal Occupational Safety and Health Administration

The Occupational Safety and Health Administration (OSHA) regulates the preparation and enforcement of occupational health and safety regulations with the goal of providing employees a safe working environment. OSHA regulations apply to the work place and cover activities ranging from confined space entry to toxic chemical exposure. OSHA regulates workplace exposure to hazardous chemicals and activities through regulations governing work place procedures and equipment.

U.S. Department of Transportation

The U.S. Department of Transportation regulates the interstate transport of hazardous materials and wastes through implementation of the Hazardous Materials Transportation Act. This act specifies driver-training requirements, load labeling procedures, and container design and safety specifications. Transporters of hazardous wastes must also meet the requirements of additional statutes such as RCRA, discussed previously.

Department of Toxic Substances Control

The California Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the RCRA and the State Hazardous Waste Control Law. Both laws impose “cradle-to-grave” regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

California Occupational Safety and Health Administration

California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing state workplace safety regulations. Cal/OSHA regulations concerning the use of hazardous materials in the workplace, as detailed in Title 8 of the CCR, include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation.

Cal/OSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous waste sites. The hazard communication program requires that Safety Data Sheets be available to employees and that employee information and training programs be documented.

Regional Water Quality Control Board

The SWRCB and RWQCBs also regulate hazardous substances, materials and wastes through a variety of state statutes including, for example, the Porter Cologne Water Quality Control Act, Cal. Water Code § 13000 et seq., and the underground storage tank cleanup laws (Cal. Health and Safety Code §§ 25280-25299.8). RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Any person proposing to discharge waste within any region must file a report of waste discharge with the appropriate regional board. The Proposed Area is located within the jurisdiction of the SFBRWQCB.

Certified Unified Program Agency

Hazardous materials management in the City is administered through the Department of Environmental Health, Hazardous Materials Division, which is the Certified Unified Program Agency (CUPA) for all cities and unincorporated areas within the County (Alameda County, 2021a). The legislation that developed the CUPA was created by the State Legislature to minimize the number of inspections and different fees for businesses that use hazardous materials and dispose of hazardous wastes.

California Accidental Release Prevention Program, Risk Management Plan

The County has implemented a California Accidental Release Prevention Program in compliance with the CCR Title 19, Division 2, Chapter 4 and 4.5 (California Accidental Release Prevention), and OSHA Process Safety Management standards (Section 5189 of Title 8 of CCR, or CFR, Title 29, Section 1910.119) (Alameda County, 2021b). This program requires any business that handles more than threshold quantities of a Regulated Substance to develop a RMP. The RMP is implemented by the business to prevent or mitigate releases of regulated substances that could have off-site consequences.

3.10.3 DISCUSSION OF IMPACTS

Question A

Would the project: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant with Mitigation. The Proposed Project involves improvements to water and sewer pipeline segments throughout the City. Construction of the Proposed Project would require site preparation activities, such as excavation at the pipeline locations and minor grading at improvement location S29 for regrading and recompaction of the existing road. During construction, oil, diesel fuel, gasoline, hydraulic fluid, and other liquid hazardous materials could be used. If spilled, these substances could pose a risk to the environment or human health. This is a potentially significant impact. **Mitigation Measure HYD-1** would require implementation of erosion and sedimentation BMPs, which address potential leaks and spills from vehicles and construction equipment. With implementation of **Mitigation Measure HYD-1** and adherence to regulatory requirements, potential impacts associated with hazardous materials during construction activities would be less than significant.

Once constructed, the Proposed Project would transport water and sewage through the various improved pipelines. Although sewer pipelines would convey potentially hazardous sewage waste, sewage would be contained within the pipe and therefore would not create a significant hazard to the public or the environment. As described in **Section 2.4** and **Section 3.8** above, the pipelines are specifically being replaced to improve the condition and safety of the pipes and have been designed to withstand potential disruption or corrosion. With Implementation of **Mitigation Measure HYD-1** and incorporation of design elements as part of the Proposed Project, impacts would be reduced to less than significant.

Question B

Would the project: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant with Mitigation. As discussed above, construction and operation of the Proposed Project could potentially create a hazard to the public or the environment in the event of an accidental release of hazardous materials into the environment. This is a potentially significant impact. However, **Mitigation Measure HYD-1** and incorporation of earthquake-resistant design elements as part of the Proposed Project, would reduce impacts to less than significant.

Question C

Would the project: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than Significant with Mitigation. There are several schools within the boundaries of the Project Area. Improvement location S3 is located within the western boundary of Harder Elementary School, along the fence line of the school's field. During construction, oil, diesel fuel, gasoline, hydraulic fluid, and other liquid hazardous materials could be used. If spilled, these substances could pose a risk to the environment or human health. This is a potentially significant impact. **Mitigation Measure HYD-1** would require implementation of erosion and sedimentation BMPs, which address potential leaks and spills from vehicles and construction equipment. Once construction is complete, components of the Proposed Project would be located underground and there would be no operational risks related to hazardous materials. Therefore, impacts related to the handling of hazardous materials within one-quarter mile of a school would be less than significant with mitigation.

Question D

Would the project: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The Hazardous Waste and Substances Sites (Cortese) List is a planning tool used by the State, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. The Cortese list is prepared in accordance with California Government Code Section 65962.5. The List of Hazardous Waste and Substances sites from DTSC EnviroStor and the SWRCB GeoTracker databases were reviewed to locate "Cortese List" sites. This search showed that several sites of Potential Environmental Concern and Clean Up sites occur in the vicinity of the Project Area (EnviroStor, 2021; GeoTracker, 2021). However, the specific improvement locations do not conflict with the locations of any active sites of Potential Environmental Concern or Clean Up sites. Therefore, the Proposed Project would not create a significant hazard to the public or the environment. No Impact would occur.

Question E

For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less than Significant. The Project Area intersects the Airport Influence Areas for the Hayward Executive Airport and the Metropolitan Oakland International Airport (Alameda County, 2012). Industrial and utility

land uses are allowed within the Airport Influence Areas as long as their exterior noise exposure does not exceed 69 decibel (dB) Community Noise Equivalent Level (CNEL) exposure. Construction sites under the Proposed Project are located outside of the noise compatibility zones of both influence areas, except for Site W15, which is located within the 60 decibel CNEL zone of the Metropolitan Oakland International Airport Influence Area. Because the 60 decibel CNEL zone does not exceed the allowable exposure of 69 decibel CNEL, neither temporary construction activities nor operations of the Proposed Project would affect the safe operations of any local airport. The Proposed Project would not result in a safety hazard or excessive noise for people residing or working in the vicinity of a private airstrip. This is a less-than-significant impact.

Question F

Would the project: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant with Mitigation. Construction of the Proposed Project would result in temporary lane closures. Lane closures, if not properly regulated, could potentially interfere with an adopted emergency response or evacuation plan. This would be a potentially significant impact. However, as described in **Section 3.18.4**, **Mitigation Measures T-1** requires that a Traffic Control Plan (TCP) be developed prior to the start of construction activities. The TCP would require that adequate emergency access is provided to all adjacent land use during construction activities. Therefore, with implementation of **Mitigation Measures T-1**, the Proposed Project would not interfere with an adopted emergency response plan or emergency evacuation plan in place through the State, County, or City. Impacts would be less than significant with mitigation.

Question G

Would the project: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than Significant. The City is urban in nature and largely developed. As explained in **Section 3.21**, the Proposed Project would occur within tight and defined boundaries of each pipeline location point. The City, including the Project Area, is not located in a SRA, but is rather located in an Incorporated LRA (CalFire, 2008). The Project Area is located within a FHSZ classification of “Non-Very High FHSZ”. The closest land designated as a moderate/high FHSZ, is the rural and mountainous areas east, north, and southeast of the of the City of Fairview, approximately 3 miles east of the Project Area. Furthermore, the Project Area does not involve unique slopes or other factors that would exacerbate wildfire risks. The Proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Impacts would be less than significant.

Cumulative Impacts

Less than Significant with Mitigation. Hazard-related impacts are site specific (i.e., have the potential to affect only a limited area). Various existing and proposed development infrastructure, including residential, industrial, and public facilities in the vicinity of the Project Area would all involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction and

operations; hazardous materials utilized during construction and operations of the Proposed Project would be limited to the individual improvement locations.

Construction of the Proposed Project could potentially have adverse impacts associated with hazards and hazardous materials. **Mitigation Measure HYD-1** and incorporation of design elements as part of the Proposed Project would mitigate potential impacts from accidental release of hazardous materials to a less-than-significant level. Reduction of on-site hazardous related impacts, as discussed above, would ensure that construction activities would not result in impacts that would be cumulatively considerable. Operation of the Proposed Project and cumulative projects could result in a cumulative impact if these projects were to result in potential exposure of hazardous materials to sensitive individuals or the general public-at-large, or if additional projects in the vicinity were to include the use or storage of hazardous materials. Because any hazardous materials use would be properly contained on-site, operation of the Proposed Project would not contribute to cumulatively considerable hazardous impacts.

3.10.4 MITIGATION MEASURES

Implement **Mitigation Measure HYD-1** and **T-1**.

3.11 HYDROLOGY/WATER QUALITY

3.11.1 ENVIRONMENTAL CHECKLIST

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

3.11.2 SETTING

Regulatory Context

Clean Water Act

The CWA (33 USC §§ 1251-1376), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Important sections of the Act are as follows:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines. Under Section 303(d) of the CWA, the USEPA publishes a list every two years of impaired bodies of water for which water quality objectives are not attained. Total Maximum Daily Loads are established for contaminants of concern in order to ensure contamination levels decrease over time.
- Section 401 (Water Quality Certification) requires an applicant for any federal permit that proposes an activity, which may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the Act.
- Section 402 establishes the NPDES, a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. This permit program is administered by the SWRCB and is discussed in detail below.
- Section 404 establishes a permit program for the discharge of dredged or fill material into waters of the United States. This permit program is jointly administered by USACE and the USEPA.

Federal Anti-Degradation Policy

The federal Anti-Degradation Policy is part of the CWA (Section 303(d)) and is designed to protect water quality and water resources. The policy directs states to adopt a statewide policy that includes the following primary provisions: (1) existing instream uses and the water quality necessary to protect those uses shall be maintained and protected; (2) where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development; and (3) where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

Safe Drinking Water Act

Under the Safe Drinking Water Act (SDWA) (Public Law 93-523), passed in 1974, USEPA regulates contaminants of concern to domestic water supply. Contaminants of concern relevant to domestic water supply are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by USEPA primary and secondary Maximum Contaminant Levels (MCL). MCLs and the process for setting these standards are reviewed triennially. Amendments to the SDWA enacted in 1986 established an accelerated schedule for setting drinking water MCLs.

National Pollution Discharge Elimination System

Under Section 402(p) of the CWA, the USEPA established the NPDES to enforce discharge standards from a variety of sources. Both point source and non-point-source pollution is covered under the NPDES. Dischargers in both categories can apply for individual discharge permits, or apply for coverage under the General Permits that cover certain qualified dischargers. Point source discharges come from “any discernible, confined, and discrete conveyance,” including municipal and industrial wastewater, stormwater runoff, combined sewer overflows, sanitary sewer overflows, and municipal separated storm sewer systems. NPDES permits impose limits on the pollutants discharged based on minimum performance standards or the quality of the receiving water, whichever type is more stringent in a given situation.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) provides the basis for water quality regulation within California. The Act requires a “Report of Waste Discharge” for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater of the State. The RWQCB implements waste discharge requirements identified in the Report.

State Non-Degradation Policy

In 1968, as required under the federal Anti-Degradation Policy described previously, the SWRCB adopted a Non-Degradation Policy aimed at maintaining high quality for waters in California. The Non-degradation Policy states that the disposal of wastes into state waters shall be regulated to achieve the highest water quality consistent with maximum benefit to the people of the state and to promote the peace, health, safety, and welfare of the people of the state. The policy provides as follows:

1. Where the existing quality of water is better than required under existing water quality control plans, such quality would be maintained until it has been demonstrated that any change would be consistent with maximum benefit to the people of the state and would not unreasonably affect present and anticipated beneficial uses of such water.
2. Any activity which produces waste or increases the volume or concentration of waste and which discharges to existing high-quality waters would be required to meet WDRs that would ensure (1) pollution or nuisance would not occur and (2) the highest water quality consistent with the maximum benefit to the people of the state would be maintained.

Hayward 2040 General Plan

Applicable City General Plan goals, policies, and objectives include:

Policy Document Part 3: Natural Resources Element

Goal NR-6	Improve overall water quality by protecting surface and groundwater sources, restoring creeks and rivers to their natural state, and conserving water resources.

Environmental Setting

The Project Area is within several watersheds, including Old Alameda Creek, Hayward Landing, Lower Sulphur Creek, and San Lorenzo Creek (Alameda County, 2021c). The City is located within the Castro Valley and Santa Clara Valley East Bay Plain Groundwater Sub-basins (CDWR, 2020). This sub-basin drains an area of 3 square miles. FEMA oversees the delineation of flood zones and the provision of federal disaster assistance. FEMA manages the National Flood Insurance Program and publishes the Flood Insurance Rate Maps (FIRM), that show the expected frequency and severity of flooding by area, typically for the existing land use and type of drainage/flood control facilities present. The majority of the improvement locations are located outside of a designated flood zone. Improvement locations that overlap 1.0 percent and 0.2 percent annual chance flood hazard zones are depicted on **Figure 3-2** (FEMA, 2020). The majority of Improvement locations are located in paved roadways. However, Improvement location S10 has a stream drainage, Ward Creek, approximately 75 feet from where sewer lines are to be improved, but is avoided through project design.

3.11.3 DISCUSSION OF IMPACTS

Question A

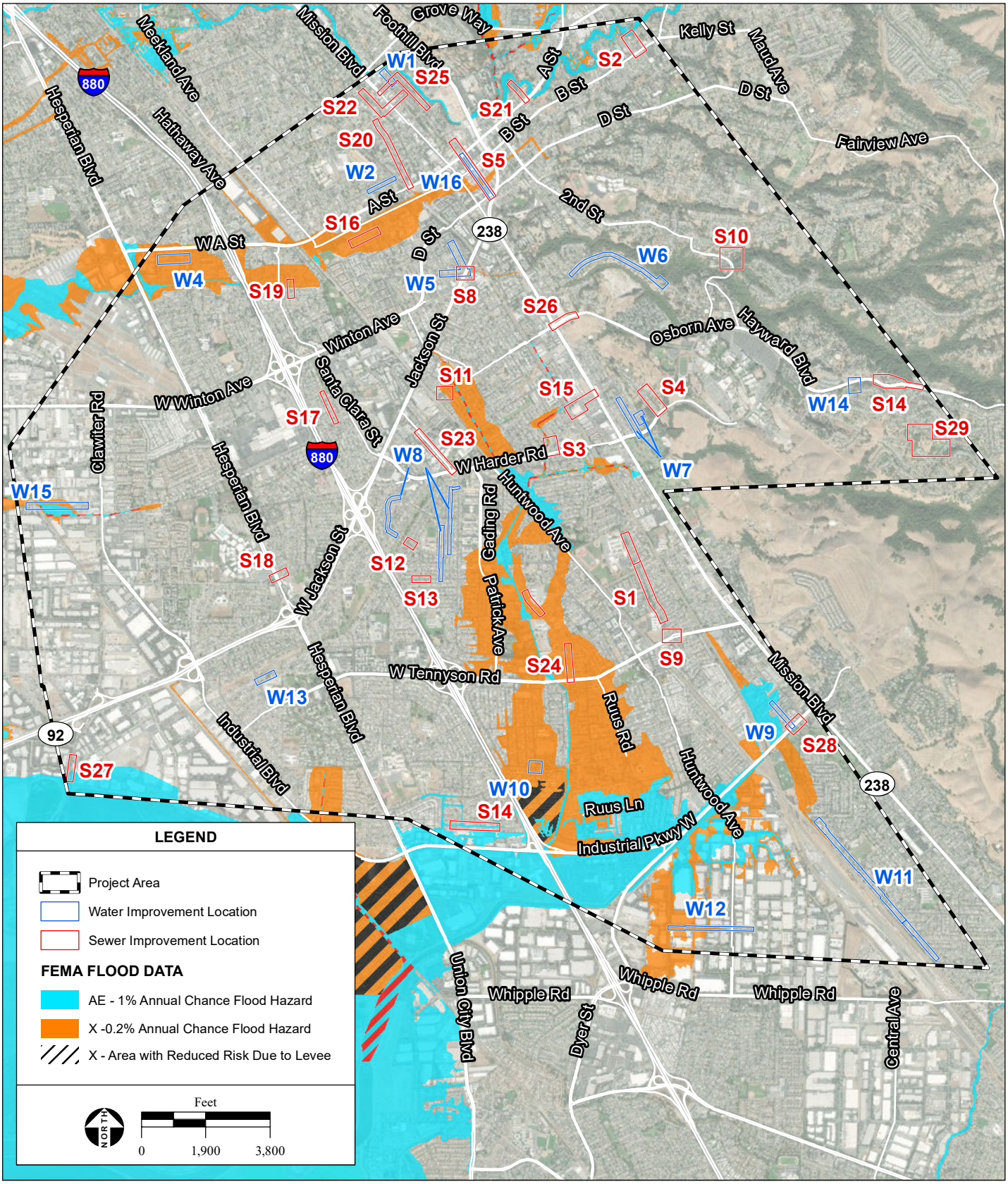
Would the project: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant with Mitigation. Construction of the Proposed Project could potentially violate water quality standards or waste discharge requirements, as construction equipment and materials have the potential to result in accidental discharge of pollutants into water resources. This would be a potentially significant impact. Potential pollutants include particulate matter, sediment, oils and greases, concrete, and adhesives. **Mitigation Measure HYD-1** would require construction activities to employ erosion and sediment control BMPs and/or obtain coverage under the NPDES Construction General Permit for construction activities, as necessary. Disturbed areas would be restored to pre-construction conditions and once operational, the Proposed Project would not generate potential pollutants that could affect water quality. With implementation of **Mitigation Measure HYD-1**, impacts related to water quality standards would be less than significant.

Question B

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?

No Impact. The Proposed Project would not require groundwater supplies and disturbed areas would be restored to pre-construction conditions, with no additional impervious surfaces added which could inhibit groundwater recharge. No impact to groundwater resources would occur.



SOURCE: FEMA FIRM, effective 8/2009; HydroScience Engineering, 12/2020; Vivid/Maxar aerial photograph, 11/4/2019; Caltrans, 2020; AES, 6/22/2021

Figure 3-2
FEMA Flood Zones

Question C

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 which would: i) result in a substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; 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?

Less than Significant with Mitigation. The Proposed Project would not substantially alter the existing drainage pattern of the area around the improvement locations, as no major grading is proposed and disturbed areas would be restored to pre-construction conditions. However, construction of the Proposed Project has the potential to result in erosion, siltation, temporary changes to drainage patterns, and contamination of stormwater. This would be a potentially significant impact. **Mitigation Measure HYD-1** would require construction activities to employ erosion and sediment control BMPs and/or obtain coverage under the NPDES Construction General Permit for construction activities, as necessary. This would include implementation of BMPs during construction to reduce the potential for impacts associated with erosion and exceeding water quality thresholds. Implementation of BMPs such as fiber rolls, hay bales, and silt fencing, would reduce the potential for sediment and stormwater runoff containing pollutants from entering receiving waters. With implementation of **Mitigation Measure HYD-1**, impacts related to alterations in drainage patterns and impervious surfaces would be less than significant.

Question D

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

Less than Significant. As described above, the majority of the improvement locations are located outside of a designated flood zone. Approximately 10 improvement locations partially overlap areas designated as a 1.0 percent (100-year floodplain) and 0.2 percent (500-year floodplain) annual chance flood hazard zone, and are depicted on **Figure 3-2**. Construction of the Proposed Project would be temporary, with exposed pipeline covered and returned to pre-construction conditions as work progressed along the length of the pipeline. Construction activities would not significantly re-direct the flow of stormwater runoff or inhibit stormwater from absorbing into the ground, and runoff would continue to be collected by the City's stormwater drainage system, when applicable. None of the improvement locations are within a tsunami zone (DOC, 2009). Once construction is complete, all improved pipelines would be located underground and would not be affected in the case of a flood hazard. Impacts would be less than significant.

Question E

Would the project: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant with Mitigation. Water quality in stormwater runoff is regulated by the Alameda County Clean Water Program, which facilitates local compliance with the CWA. As described in Question A above, construction of the Proposed Project could potentially violate water quality standards or waste

discharge requirements, as construction equipment and materials have the potential to result in accidental discharge of pollutants into water resources. This would be a potentially significant impact. **Mitigation Measure HYD 1** would require construction activities to employ erosion and sediment control BMPs and/or obtain coverage under the NPDES Construction General Permit for construction activities, as necessary. Furthermore, the Proposed Project would not use groundwater supplies or obstruct groundwater recharge. With implementation of **Mitigation Measure HYD 1**, Impacts would be less than significant.

Cumulative Impacts

Less than Significant with Mitigation. The Proposed Project and potential cumulative projects in the vicinity of the Project Area would be required to employ erosion and sediment BMPs and/or obtain coverage under the NPDES Construction General Permit, which is intended to reduce the potential for cumulative impacts to water quality during construction (refer to **Mitigation Measure HYD-1**). Therefore, impacts on cumulative construction-related water quality effects would be less than significant after compliance with relevant BMPs and/or the NPDES Construction General Permit. Additionally, the Proposed Project would not result in new hardscape that would not be cumulatively considerable.

The Proposed Project is part of the City Council Adopted Strategic Roadmap to improve utilities infrastructure and is accounted for in the City's 2014 WSMP and 2015 CSMP, as well as the City's General Plan. Cumulative development projects and the Proposed Project would be subject to local, State, and federal regulations designed to minimize cumulative impacts to hydrology and water resources. Mitigation measures for the Proposed Project in combination with compliance with City, State, and federal regulations, are expected to reduce cumulatively considerable impacts to a less-than-significant level.

3.11.4 MITIGATION MEASURES

HYD-1 Erosion and Sediment Control BMPs

Construction of pipeline improvements would take place at varying locations and within individual construction timelines. If it's determined that a specific improvement location requires coverage under the NPDES Construction General Permit, the Applicant shall obtain coverage prior to initiation of construction activities. The SWRCB requires that construction sites have adequate control measures to reduce the discharge of sediment and other pollutants to streams to ensure compliance with Section 303 of the CWA. To comply with the NPDES permit, a Notice of Intent shall be filed with the SWRCB and a SWPPP shall be approved prior to construction. The SWPPP shall include a detailed, site-specific listing of the potential sources of stormwater pollution; pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills) including a description of the type and location of erosion and sediment control BMPs to be implemented at the Project Site; and a BMP monitoring and maintenance schedule to determine the amount of pollutants leaving the Project Site. A copy of the SWPPP shall be kept on the Project Site.

If it's determined that coverage under the NPDES Construction General Permit is not required, the following water quality BMPs recommended by the Construction General Permit shall nonetheless be employed:

- Areas where ground disturbance occurs shall be identified in advance of construction and limited to approved areas.
- Vehicular construction traffic shall be confined to the designated access routes and staging areas.
- Equipment maintenance and cleaning shall be confined to staging areas. No vehicle maintenance shall occur on-site during construction.
- Disturbed areas shall be restored to pre-construction contours to the extent possible.
- Hay/straw bales and silt fences shall be used to control erosion during stormwater runoff events.
- The highest quality soil shall be salvaged, stored, and used for native re-vegetation/seeding.
- Drainage gaps shall be implemented in topsoil and spoil piles to accommodate/reduce surface water runoff.
- Sediment control measures shall be in place prior to the onset of the rainy season and will be maintained until disturbed areas have been re-vegetated. Erosion control structures shall be in place and operational at the end of each day if work activities occur during the rainy season.
- Fiber rolls shall be placed along the perimeter of disturbed areas to ensure sediment and other potential contaminants of concern are not transported off-site or to open trenches. Locations of fiber rolls will be field adjusted as needed.
- Vehicles and equipment stored in the construction staging area shall be inspected regularly for signs of leakage. Leak-prone equipment will be staged over an impervious surface or other suitable means will be provided to ensure containment of any leaks. Vehicle/equipment wash waters or solvents will not be discharged to surface waters or drainage areas.
- During the rainy season, soil stockpiles and material stockpiles will be covered and protected from the wind and precipitation. Plastic sheeting will be used to cover the stockpiles and straw wattles will be placed at the base for perimeter control.
- Contractors shall immediately control the source of any leak and immediately contain any spill utilizing appropriate spill containment and countermeasures. Leaks and spills shall be reported to the designated representative of the lead contractor. Contaminated media shall be collected and disposed of at an off-site facility approved to accept such media.

3.12 LAND USE/PLANNING

3.12.1 ENVIRONMENTAL CHECKLIST

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

3.12.2 SETTING

Regulatory Context

Hayward 2040 General Plan

Applicable City General Plan goals, policies, and objectives include:

Policy Document Part 3: Land Use and Community Character Element

Goal LU-1.10 The City shall ensure that adequate infrastructure capacities are available to accommodate planned growth throughout the City.

Environmental Setting

The Project Area consists of 44 distinct pipeline improvement locations throughout the City and is within City limits. The 44 pipeline locations fall under various City zoning classifications (City of Hayward, 2019). The Proposed Project involves improving various water and wastewater pipeline segments across the City, as well as repairing an existing access road and retaining wall at location S29; zoning conflicts are not anticipated.

3.12.3 DISCUSSION OF IMPACTS

Question A

Would the project: Physically divide an established community?

No Impact. Projects that have the potential to physically divide an established community typically include new freeways and highways, major arterials streets, and railroad lines. The Proposed Project would not physically divide an established community. No impact would occur.

Question B

Would the project: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The Proposed Project is part of the City Council Adopted Strategic Roadmap to improve utilities infrastructure and selected line upgrades are based on recommendations from the City's 2014 WSMP and 2015 CSMP. Implementation of the Proposed Project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environment effect. No impact would occur.

Cumulative Impacts

Less than Significant. Potential cumulative projects in the vicinity of the Project Area, including population growth resulting from build-out of the City's General Plan, would be developed in accordance with local and regional planning documents. As described above, the Proposed Project is part of the City Council Adopted Strategic Roadmap to improve utilities infrastructure and is accounted for in the City's 2014 WSMP and 2015 CSMP, as well as the City's General Plan. Thus, cumulative impacts associated with land use compatibility are expected to be less than significant. Additionally, as discussed above, the Proposed Project is consistent with the General Plan land use designations, goals, and policies, and thus would not contribute to the potential for adverse cumulative land use effects.

3.12.4 MITIGATION MEASURES

None required.

3.13 MINERAL RESOURCES

3.13.1 ENVIRONMENTAL CHECKLIST

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

3.13.2 SETTING

Regulatory Setting

Pursuant to the mandate of the Surface Mining and Reclamation Act of 1975 (SMARA), the State Mining and Geology Board (SMGB) designates mineral deposits that have regional, multi-community, or statewide economic significance. SMARA allows the SMGB to designate and classify lands containing mineral deposits of regional or statewide significance. Classification of minerals is completed by the State Geologist in accordance with the SMGB's priority list, into four Mineral Resource Zones (MRZ). Lands classified as MRZ-1 are areas where geologic information indicates no signification mineral deposits are present; MRZ-2 indicates areas that contain identified mineral resources; MRZ-3 indicates areas of undetermined mineral resources significance; MRZ-4 indicates areas of unknown mineral resource potential (DOC, 2019).

Environmental Setting

There are no known mineral resources in the Project Area. According to the California Division of Mines and Geology land classification map prepared for the South San Francisco Bay Production-Consumption Region, which includes the City, there are no areas designated as MRZ-2 (DOC, 1996). According to the USGS Mineral Resources Data System, there are no known mineral resources located in the Project Area (USGS, 2021b). No mining is known to occur in the area. In addition, the Alameda County General Plan does not identify mineral resources in the program area.

3.13.3 DISCUSSION OF IMPACTS

Question A

Would the project: Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?

No impact. According to the USGS Mineral Resources Data System, there are no known mineral resources located in the Project Area (USGS, 2021b). Therefore, the Proposed Project would not result in the loss of availability of any mineral resources that could be of value to the region. No impacts would occur to mineral resources.

Question B

Would the project: Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No impact. There are no locally important mineral resource recovery sites in the area (USGS, 2021b). No impacts would occur to mineral resources.

3.13.4 MITIGATION MEASURES

None required.

3.14 NOISE

3.14.1 ENVIRONMENTAL CHECKLIST

NOISE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.14.2 SETTING

Background Information on Noise

Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second or Hertz.

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20

micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60-dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (also referred to as L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-dB weighing applied to noise occurring during nighttime (10:00 P.M. to 7:00 A.M.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 3-7 lists several examples of the noise levels associated with common situations.

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Table 3-7. Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 meters (1,000 ft.)	--100--	
Gas Lawn Mower at 1 meter (3 ft.)	--90--	
Diesel Truck at 15 meters (50 ft.), at 80 km/hour (50 mph)	--80--	Food Blender at 1 meter (3 ft.) Garbage Disposal at 1 meter (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	--70--	Vacuum Cleaner at 3 meters (10 ft.)
Commercial Area Heavy Traffic at 90 meters (300 ft.)	--60--	Normal Speech at 1 meter (3 ft.)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing
Source: Caltrans, 2013		

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (e.g., atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

Existing Noise and Vibration Environments

Existing Sensitive Receptors

Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Sensitive noise receptors may also include threatened or endangered noise sensitive biological species, although many jurisdictions have not adopted noise standards for wildlife areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

As described in **Section 2.2**, the pipeline improvements would take place primarily within paved and disturbed right of ways in commercial and residential areas. However, some locations occur within unpaved areas such as residential backyards, parks, or utility easements.

Regulatory Setting

City of Hayward General Plan

The goals and policies contained in the Hayward 2040 General Plan Hazards Element focus on minimizing human exposure to excessive noise by evaluating noise exposure risks and incorporating appropriate mitigation measures. In support of these goals, the General Plan contains a table of exterior noise compatibility standards for various land uses (shown in **Table 3-8**) to determine potential noise exposure impacts. The following policies of the City General Plan Hazards Element are applicable to the Proposed Project.

Goal HAZ-8 Minimize human exposure to excessive noise and ground vibration.

HAZ-8.20 Construction Noise Study. The City may require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on those uses, to the extent feasible.

HAZ-8.21 Construction and Maintenance Noise Limits. The City shall limit the hours of construction and maintenance activities to the less sensitive hours of the day (7:00am to 7:00pm Monday through Saturday and 10:00am to 6:00 pm on Sundays and holidays)

City of Hayward Municipal Code

Section 4-1 of the Hayward Municipal Code contains the City's noise regulations as amended by Ordinance 11-03, adopted March 22, 2011. Section 4-1.03-1 establishes residential property noise limits such that noise above 70 dBA between the hours of 7:00 a.m. and 9:00 p.m. is prohibited and a noise level of 60 dBA between the hours of 9:00 p.m. and 7:00 a.m. is prohibited. The noise limit for industrial and commercial properties is 70 dBA for all hours of the day.

Section 4-1.03.4 of the Hayward Municipal Code states that during construction no piece of equipment shall produce a noise level exceeding 83 dBA at 25 feet from the source or 86 dBA at any point outside the property. This section, consistent with General Plan policy HAZ-8.21, also limits construction, alteration, or repair of structures and any landscaping activities to the hours below:

1. Sundays and holidays between 10:00 a.m. and 6:00 p.m. (contingent on City approval)

2. Monday through Saturday between 7:00 a.m. and 7:00 p.m.

If construction occurs outside of the listed hours, the limits under Section 4-1.03-1 would apply.

Table 3-8. City of Hayward Exterior Noise Compatibility Standards

Land Use Type	Highest Level of Exterior Noise Exposure that is Regarded as "Normally Acceptable"[1] (CNEL)
Residential: Single-Family Homes, Duplex, Mobile Home	60
Residential: Townhomes and Multi-Family Apartments and Condominiums	65
Urban Residential Infill[2] and Mixed-Use Projects[3]	70
Lodging: Motels and Hotels	65
Schools, Libraries, Churches, Hospitals, Nursing Homes	70
Auditoriums, Concert Hall, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75
Office Buildings: Business, Commercial, and Professional	70
Industrial Manufacturing, Utilities, Agriculture	75

[1] "Normally Acceptable" means that the specified land uses is satisfactory, based upon the assumption that any building involved is ofnormal conventional construction, without any special noise mitigation.
[2] Urban residential infill would include all types of residential development within existing or planned urban areas (such as Downtown, The Cannery Neighborhood, and the South Hayward BART Urban Neighborhood) and along major corridors (such as Mission Boulevard).
[3] Mixed-Use Projects would include all mixed-use developments throughout the City of Hayward.
Source: City of Hayward General Plan

3.14.3 DISCUSSION OF IMPACTS

Question A

Would the project 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?

Construction

Less than Significant. During the construction of the Proposed Project, noise from construction activities would temporarily add to the noise environment in the vicinity of the improvement locations. As shown in Error! Reference source not found.**-9**, activities involved in construction would generate maximum noise levels ranging from 76 to 83 dB at a distance of 50 feet.

Table 3-9. Construction Equipment Noise

Type of Equipment	Maximum Level, dBA at 50 feet
Backhoe	78
Compactor	83
Compressor (air)	78
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Source: Federal Highway Administration, 2006	

Construction would occur over a period of 38 months for water line improvements and 45 months for sewer line improvements, starting in 2021. Equipment associated with construction activities generally includes dozers, tractors/loaders/backhoes, cranes, forklifts, welders, pavers and paver equipment, rollers, and air compressors. Construction activities would also be temporary in nature and are anticipated to occur during normal daytime working hours.

Existing sensitive receptors located within approximately 50 feet of construction activity could experience maximum instantaneous noise levels of up to 83 dBA L_{max}. Average noise levels are expected to be 5-10 dBA less than maximum noise levels, or 73-78 dBA L_{eq}. Because construction activity could intermittently occur less than 50 feet from sensitive receptors, the City's construction noise threshold of 86 dBA may be exceed. However, Section 4-1.03.4 of the City's Municipal Code prohibits construction outside of the hours of 10:00 a.m. and 6:00 p.m. on Sundays and holidays, and 7:00 a.m. and 7:00 p.m. on other days. Accordingly, no construction activities associated with the Proposed Project would occur outside of these hours, minimizing the potential for noise-related sleep disruption. Given the temporary nature of construction activities, and restrictions on construction times required by the City's Municipal Code, impacts relating to construction noise levels associated with the Proposed Project would be considered less than significant.

Operation

Less than Significant. As described above in **Section 3.4.3**, operation of the Proposed Project would require routine maintenance of water and sewer pipelines and appurtenant structures. However, maintenance activities would result in a negligible increase in additional traffic, and associated noise. Such noises would not result in a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project Site in excess of standards established in the local general plan or noise ordinance. Therefore, impacts relating to noise levels due to operation of the Proposed Project would be considered less than significant.

Question B

Would the project result in: Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant. The primary vibration-generating activities associated with the Proposed Project would occur during construction when activities such as trenching, drilling, and paving occur. For

structural damage, Caltrans uses a vibration limit of 0.5 inches/second, peak particle velocity (in/sec, PPV), for buildings structurally sound and designed to modern engineering standards; 0.2 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern; and a conservative limit of 0.08 in/sec PPV for historic buildings or buildings that are documented to be structurally weakened. All surrounding structures are assumed to be structurally sound, but damage would be a concern, therefore the 0.2 in/sec PPV will be used as a threshold of significance for structural damage. The threshold of 0.2 in/sec PPV is also used by Caltrans as the threshold for human annoyance caused by vibration. Therefore, activities creating vibrations exceeding 0.2 in/sec PPV would impact sensitive receptors in nearby residences (Caltrans, 2013). **Table 3-10** shows the typical vibration levels produced by construction equipment.

Table 3-10. Vibration Levels for Various Construction Equipment

Type of Equipment	Peak Particle Velocity at 25 feet (inches/second)	Peak Particle Velocity at 50 feet (inches/second)
Loaded Trucks	0.076	0.027
Small Bulldozer	0.003	0.001
Auger/drill Rigs	0.089	0.031
Jackhammer	0.035	0.012
Vibratory Hammer	0.070	0.025
Source: Caltrans, 2013		

The **Table 3-10** data indicate that construction vibration levels anticipated for the Proposed Project are less than the 0.2 inches per second threshold at distances of 25 feet. Sensitive receptors located less than 25 feet from construction activities could be impacted by construction related vibrations, especially drill rigs and vibratory hammers. However, as described above, the City's Municipal Code prohibits construction outside of the hours of 10:00 a.m. and 6:00 p.m. on Sundays and holidays, and 7:00 a.m. and 7:00 p.m. on other days. Accordingly, no construction activities associated with the Proposed Project would occur outside of these hours, minimizing the potential for vibration-related disruption. Given the temporary nature of construction activities, and restrictions on construction times required by the City's Municipal Code, impacts relating to construction vibration levels associated with the Proposed Project would be considered less than significant.

Question C

For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project Area intersects the Airport Influence Areas for the Hayward Executive Airport and the Metropolitan Oakland International Airport (Alameda County, 2012). Industrial and utility land uses are allowed within the Airport Influence Areas as long as their exterior noise exposure does not exceed 69 decibel CNEL exposure. Construction sites under the Proposed Project are located outside of the noise compatibility zones of both influence areas, except for Site W15, which is located within the 60 decibel CNEL zone of the Metropolitan Oakland International Airport Influence Area. Because the 60 decibel

CNEL zone does not exceed the allowable exposure of 69 decibel CNEL, construction workers or users of the project site would not be exposed to substantial aircraft noise, and no impacts would occur.

Cumulative Impacts

Less than Significant. As stated above, operation of the Proposed Project would not increase existing ambient noise levels above the applicable thresholds at sensitive receptors. Therefore, the Proposed Project would not result in cumulatively considerable impacts. This impact is considered less than significant.

3.14.4 MITIGATION MEASURES

None required.

3.15 POPULATION AND HOUSING

3.15.1 ENVIRONMENTAL CHECKLIST

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

3.15.2 SETTING

Regulatory Setting

Hayward 2040 General Plan

Applicable City General Plan goals, policies, and objectives include:

Policy Document part 3: Land Use and Community Character Element

Goal LU-1 Promote local growth patterns and sustainable development practices that improve quality of life, protect open space and natural resources, and reduce resource consumption, traffic congestion, and related greenhouse gas emissions.

Environmental Setting

The City provides water and sewer services to its approximately 160,000 residents. The Housing Element of the City General Plan projects the total population in the City will increase to approximately 183,533 by 2040, with an additional 59,919 housing units added.

3.15.3 DISCUSSION OF IMPACTS

Question A

Would the project: Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant. The Proposed Project involves improving various water and wastewater pipeline segments across the City, as well as repairing an existing access road and retaining wall at location S29. In some cases, this involves the upsizing of pipeline segments. Upsizing of water and/or sewer lines could potentially indirectly induce population growth through increasing capacity. However, the Proposed Project is part of the City Council Adopted Strategic Roadmap to improve utilities infrastructure and is accounted for in the City's 2014 WSMP and 2015 CSMP, as well as the City's General Plan. Thus, improvements to pipeline segments as part of the Proposed Project, are accounted for and anticipated within City planning documents, and are specifically required to meet current and future capacity demands within the City. Therefore, impacts associated with population growth and the expansion of sewer/water infrastructure would be less than significant.

Question B

Would the Project: Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Proposed Project would not displace existing housing or people that would necessitate the construction of replacement housing. No impact would occur.

Cumulative Impacts

Less than Significant. The Proposed Project is not expected to increase unplanned growth, and therefore would not contribute to cumulative impacts associated with growth. No impact would occur.

3.15.4 MITIGATION MEASURES

None required.

3.16 PUBLIC SERVICES

3.16.1 ENVIRONMENTAL CHECKLIST

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

3.16.2 SETTING

The City provides public services for its residents, including fire and police protection, schools, parks, and other various public facilities. The Proposed Project involves improving various water and wastewater pipeline segments across the City, as well as repairing an existing access road and retaining wall at location S29; the provision of additional public services is not anticipated.

3.16.3 DISCUSSION OF IMPACTS

Questions A through E

Would the project: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: fire protection; police protection; schools; parks; other public facilities?

Less than Significant with Mitigation. The Proposed Project involves the replacement, relocation, and/or installation of sewer and water pipeline segments and would not introduce housing or residents that could lead to an increase demand for public services. The Proposed Project is part of the City Council Adopted Strategic Roadmap to improve utilities infrastructure and is accounted for in the City's 2014 WSMP and 2015 CSMP, as well as the City's General Plan. Thus, improvements to pipeline segments as part of the Proposed Project, are accounted for and anticipated within City planning documents, and are specifically required to meet current and future capacity demands within the City. Therefore, the Proposed Project would not lead to unanticipated growth or expanded facilities, or affect the performance objectives of public facilities.

During construction, the time that water service is out would be minimized. It is expected that new water pipelines would be constructed parallel to existing water services. Once the new pipeline is ready to be operated, services would be switched from the existing pipeline to the new pipeline. This switchover would require water service to residents to be shut off for a short period.

Construction of the Proposed Project would result in temporary lane closures. Lane closures, if not properly regulated, could potentially interfere with fire and police emergency response times. This would be a potentially significant impact. However, as described in **Section 3.18.4**, **Mitigation Measure T-1** requires that a TCP be developed prior to the start of construction activities. The TCP would require that adequate emergency access is provided to all adjacent land use during construction activities. Therefore, with implementation of **Mitigation Measures T-1**, the Proposed Project would not interfere with acceptable emergency response time. Impacts would be less than significant with mitigation.

Cumulative Impacts

Less than Significant with Mitigation. As described above, the Proposed Project would not increase the demand for fire, police, schools, parks, or other public facilities. However, Construction of the Proposed Project would result in temporary lane closures. Because **Mitigation Measure T-1** requires that a TCP be developed prior to the start of construction activities, and other developments within the City requiring lane closures would also be required to provide adequate emergency access and regulate traffic flow, cumulative impacts would be less than significant after mitigation.

3.16.4 MITIGATION MEASURES

Implementation of **Mitigation Measure T-1**.

3.17 RECREATION

3.17.1 ENVIRONMENTAL CHECKLIST

RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.17.2 SETTING

The Hayward Area Recreation and Park District is responsible for maintenance and management of parks and recreational facilities in the City. The Proposed Project does not involve introducing housing or residents to the City, who would potentially utilize the parks and recreational facilities.

3.17.3 DISCUSSION OF IMPACTS

Question A

Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The Proposed Project would not increase the use of existing neighborhood and regional parks or other recreational facilities, as the Proposed Project does not involve introducing housing or residents to the City, who could potentially utilize these facilities. No impact would occur.

Question B

Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The Proposed Project does not involve or require the construction or expansion of recreational facilities. No impact would occur.

Cumulative Impacts

No Impact. The Proposed Project would have no cumulative impact on existing recreational facilities.

3.17.4 MITIGATION MEASURES

None required.

3.18 TRANSPORTATION

3.18.1 ENVIRONMENTAL CHECKLIST

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

3.18.2 SETTING

Transportation Network

The City is located in central Alameda County at the crossroads of several regional transportation routes. The Project Area would be accessed by major regional roadways including Interstate 238, Interstate 580, Interstate 880, State Route 92, and State Route 185. Additionally, major City roadways that would be used to access the Project Area include Hesperia Boulevard, Mission Boulevard, and Jackson Street.

Bikeways, Pedestrian Facilities, Public Transportation System

The City is served by a number of transit services through a network of local, regional and intercity bus services, paratransit services, and rapid transit and regional rail services These services are provided by a number of public and private transportation agencies and companies including BART, Alameda-Contra Costa Transit District (AC Transit), Amtrak, and Greyhound Lines. The City is served by a network of designated bicycle facilities including on-street facilities and regional recreational trails. The Hayward Bicycle Master Plan sets forth detailed goals and objectives and identifies existing and recommended facilities for providing the opportunity to travel by bicycle as an alternative mode of transportation and recreation for physical, environmental and social benefits. The City is also served by a network of pedestrian facilities that include sidewalks, paths, and recreational trails.

3.18.3 DISCUSSION OF IMPACTS

Question A

Would the project: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than Significant with Mitigation. The Proposed Project is not considered a trip generating project. Operation of the Proposed Project is not anticipated to increase traffic. While periodic maintenance of water and sewer pipelines would be required, maintenance activities would result in a negligible increase in additional traffic.

Construction would result in a short-term increase in traffic levels on roadways in the improvement location areas. Construction vehicles and equipment expected to be used include, but are not limited to, legally loaded trucks, delivery and service trucks, and construction worker vehicles. At estimated peak day levels, up to approximately 40 one-way construction worker vehicle trips could occur (**Appendix D**). Therefore, construction-related traffic would result in a negligible increase in traffic volumes throughout the City. Construction of the Proposed Project could result in temporary detours to roadways and pedestrian and bicycle routes, however all facilities including sidewalks and pavement would be returned to normal operating conditions after construction. Therefore, no long-term impacts to transit, bicycle, or pedestrian facilities would occur.

Construction of the Proposed Project would result in temporary lane closures. Lane closures, if not properly regulated, could potentially conflict with a program, plan, ordinance or policy addressing the circulation system. This would be a potentially significant impact. However, implementation of **Mitigation Measure T-1** would require the preparation and approval of a TCP prior to the start of construction activities. The TCP would describe the locations and duration of anticipated lane closures, and would ensure that adequate emergency access is provided to all land uses adjacent to construction activities. Therefore, based on the above, the Proposed Project would not conflict with an applicable plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and after mitigation, a less-than-significant impact would occur.

Question B

Would the project: Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

Less than Significant. Section 15064.3 was recently added to the CEQA Guidelines and describes specific considerations for evaluating a project's transportation impacts. Section 15064.3(b) establishes VMT as the most appropriate measure of transportation impacts, shifting away from the use of LOS analysis that evaluates a project's impacts on traffic conditions at nearby roadways and intersections.

The Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA contains screening thresholds for land use projects and suggests lead agencies may screen out VMT impacts using project size, maps, and transit availability (OPR, 2018). For small projects, absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, and projects that generate or attract fewer than 110 trips per day generally, may be assumed to cause a less-than significant impact.

As described above, construction of the Proposed Project would generate a maximum of 40 trips per day. Therefore, as the number of additional trips generated by the Proposed Project is below the 110-trip screening threshold for VMT impacts contained in the OPR Technical Advisory, the Proposed Project can be assumed to cause a less-than-significant transportation impact related to VMT.

Question C

Would the project: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Proposed Project does not include modification to the existing roadways or design features that would increase hazards. As described above, construction of the Proposed Project could result in temporary roadway detours, however all facilities would be returned to normal operating conditions after construction. Therefore, the Proposed Project would not substantially increase hazards due to a geometric design feature or incompatible uses. No impact would occur.

Question D

Would the project: Result in inadequate emergency access?

Less than Significant with Mitigation. Construction of the Proposed Project would result in temporary lane closures. Lane closures, if not properly regulated, could potentially result in inadequate emergency access. This would be a potentially significant impact. However, implementation of **Mitigation Measure T-1** would require the preparation and approval of a TCP prior to the start of construction activities. The TCP would describe the locations and duration of anticipated lane closures, and would ensure that adequate emergency access is provided to all land uses adjacent to construction activities. Therefore, the Proposed Project would not result in inadequate emergency access. After mitigation, a less-than-significant impact would occur.

Cumulative Impacts

Less than Significant with Mitigation. Transportation impacts from the Proposed Project would be limited to short-term construction effects on roadways providing access to the improvement areas. **Mitigation Measure T-1**, which requires a TCP, would ensure that no transportation impacts would occur. Therefore, the Proposed Project would not contribute to cumulative impacts. No concurrent construction activities near the improvement locations are anticipated. However, if construction activities from other projects do occur within the vicinity of the improvement locations, it is assumed that each project would be responsible for mitigating traffic impacts and obtaining a TCP, if applicable. Impacts would be less than significant after mitigation.

3.18.4 MITIGATION MEASURES

T-1 Traffic Control Plan

Prior to the start of construction activities, a Traffic Control Plan (TCP) shall be developed detailing the locations and duration of anticipated lane closures. The TCP shall require that adequate emergency access is provided to all adjacent land use during construction activities. The TCP shall be review and approved by the City prior to the start of construction activities.

3.19 Tribal Cultural Resources

3.19.1 ENVIRONMENTAL CHECKLIST

TRIBAL CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. 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	☐	☒	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

3.19.2 SETTING

California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities. Because CEQA calls for a sufficient degree of analysis, tribal knowledge about the land and tribal cultural resources (TCRs) at issue are included in environmental assessments for projects that may have a significant impact on such TCRs. TCRs can only be identified by members of the Native American community, thus requiring consultation under CEQA.

Regulatory Context

Assembly Bill 52 (AB 52), signed into law in 2014, established a new category of resources in CEQA called "tribal cultural resources" that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation. Pursuant to PRC, Division 13, Section 21074, TCRs can be either:

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

    a. Included or determined to be eligible for inclusion in the CRHR; or

    b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the eligibility criteria for the CRHR (PRC § 5024.1(c)). In applying these criteria, the lead agency must consider the significance of the resource to a California Native American Tribe.

Native American tribes traditionally and culturally affiliated with a geographic area may have expertise concerning their tribal cultural resources. In light of this, AB 52 requires that, within 14 days of a decision to undertake a project or determination that a project application is complete, a lead agency shall provide written notification to California Native American tribes that have previously requested placement on the agency's notice list. Notice to tribes shall include a brief project description, location, lead agency contact information, and the statement that the tribe has 30 days to request consultation. The lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a tribe.

Consultation

The City contacted the Ione Band of Miwok Indians on April 2, 2021, the only Native American tribe which has requested placement on the City's AB 52 notice list. Furthermore, the City sent AB52 consultation letters to ten tribal contacts recommended by the NAHC on April 29, 2021 (see **Section 3.6**). As of this writing, no responses have been received.

3.19.3 DISCUSSION OF IMPACTS

Question A

Would the project: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: 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)?

Less than Significant with Mitigation. As discussed above in **Section 3.6**, no TCRs were identified during cultural resources investigations or consultation with Native American tribes. However, there is the

possibility that unanticipated discoveries of subsurface archaeological deposits or human remains may occur. This is a potentially significant impact. **Mitigation Measures CR-1** and **CR-2,** which provide for the protection of unanticipated finds made during ground disturbing activities, would reduce impacts to TCRs to a less-than-significant level.

Question B

Would the project: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: 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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant with Mitigation. As discussed above in **Section 3.6**, no TCRs were identified during cultural resources investigations or consultation with Native American tribes. Furthermore, no resources have been determined by the lead agency to be considered significant to a California Native American tribe. However, there is the possibility that unanticipated discoveries of subsurface archaeological deposits or human remains may occur. This is a potentially significant impact. **Mitigation Measures CR-1** and **CR-2**, which provide for the protection of unanticipated finds made during ground disturbing activities, would reduce impacts to TCRs to a less-than-significant level.

Cumulative Impacts

Less than Significant with Mitigation. Development of the Proposed Project may impact TCRs, adding to cumulative impacts from other projects in the region. TCRs that could be affected by the Proposed Project as well as others in the region are subject to protections under PRC Sections 5024.1, 21083.2 and 21084.1, and CEQA Guidelines Section 15064.5. In addition, projects with federal involvement would be subject to Section 106 of the NHPA. Given the non-renewable nature of TCRs, any impact to TCRs is potentially cumulatively considerable. However, as discussed above, no TCRs were identified during cultural resources investigations or consultation with Native American tribes. If resources are uncovered during construction, application of the consultation process under **Mitigation Measures CR-1** and **CR-2** would reduce impacts to TCRs to a less than significant level, Application of similar measures to TCRs located within the region would similarly reduce the Proposed Project's incremental contribution to cumulative impacts to TCRs to a less than significant level.

3.19.4 MITIGATION MEASURES

Implement **Mitigation Measures CR-1** and **CR-2**.

3.20 UTILITIES/SERVICE SYSTEMS

3.20.1 ENVIRONMENTAL CHECKLIST

UTILITIES/SERVICE SYSTEMS	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

3.20.2 SETTING

Regulatory Context

Hayward 2040 General Plan

Applicable City General Plan goals, policies, and objectives include:

Policy Document part 3: Public Facilities and Services Element

Goal PFS-1	Ensure the provision of adequate and efficient facilities and services that maintain service levels, are adequately funded, accessible, reliable, and strategically allocated.
Goal PFS-1.2	Priority for Infrastructure. The City shall give high priority in capital improvement programming to funding rehabilitation or replacement of critical infrastructure that has reached the end of its useful life or has capacity constraints.
Goal PFS-3	Maintain a level of service in the City's water system that meets the needs of existing and future development while improving water system efficiency.
Goal PFS-4	Maintain a level of service in the City's wastewater collection and disposal system to meet the needs of existing and future development.
Policy PFS-4.1	The City shall maintain and implement the Sewer Collection System Master Plan.

Hayward Municipal Code

Applicable City Public Utilities Code (Chapter 11) include:

Articles 2 and 3	Various regulations regarding the City's municipal water system (Article 2) and sanitary sewer system (Article 3). This includes requirements for construction work on these utilities, such as permits required, notice periods, sanitary conditions, and minimum main diameters. See Sections 11-2.22, 11-2.23, 11-2.25, 11-2.27, 11-3.102, and 11-3.103.

Environmental Setting

Water and Sewer Service Area

The City's approximately 160,000 residents are serviced by roughly 375 miles of water distribution pipelines. The City is supplied water from the SFPUC. The City provides water service to approximately 33,000 residential, commercial industrial, and governmental service connections (City of Hayward, 2014a). The City distribution system consists of 8 pressure zones, 16 water storage tanks, 7 pump stations, and 375 miles of water distribution pipelines servicing 37,500 water service connections. According to City records, approximately 67 percent of the City's water distribution pipelines are ACP and most of the existing water pipelines are 6-inches in diameter. The City owns and operates the wastewater collection and treatment system for residential, commercial, and industrial users. The City's residents are serviced by approximately 325 miles of sewer mains and nine sewage lift stations. The collection system conveys the wastewater flow to the City's WPCF, which treats an average of 11.3 million gallons per day of wastewater generated by the City's residents and businesses (**Appendix B**).

The City Council adopted a Strategic Roadmap, that identified improvements to its infrastructure, including water and sewer utilities, as a core priority (City of Hayward, 2020a). With this plan, the City aims to annually upgrade four to six miles of its water distribution and sanitary sewer collection system infrastructure to meet the City's level of service goals. These replacements will improve the City's water distribution system and sewer collection system, maintain the operability and capacity of the systems,

provide adequate fire flows, and prevent sanitary sewer overflows. Pipeline locations to be replaced/improved as part of the Proposed Project were based on recommendations within the WSMP and CSMP.

Solid Waste Disposal

As described in **Section 2.4.7**, the majority of existing pipeline segments to be upgraded will be abandoned in place and would not require disposal. Significant amounts of solid waste are not anticipated. In circumstances where pipe needs to be cut into and disposed of, disposal of ACP would be performed in accordance with BAAQMD and all applicable standards.

3.20.3 DISCUSSION OF IMPACTS

Question A

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?

Less than Significant. The Proposed Project involves the replacement, relocation, and/or installation of sewer and water pipeline segments. In some cases, this involves the upsizing of sewer and/or water pipeline segments. The Proposed Project is part of the City Council Adopted Strategic Roadmap to improve utilities infrastructure and is accounted for in the City's 2014 WSMP and 2015 CSMP, as well as the City's General Plan. Thus, improvements to pipeline segments as part of the Proposed Project are accounted for an anticipated within City planning documents. Potential impacts relating to upgrades of these utilities are accessed throughout this IS and where appropriate, mitigation measures have been introduced to reduce potentially significant impacts to less than significant. The Proposed Project would not require new or expanded stormwater drainage, electrical power, natural gas, or telecommunications facilities. Therefore, impacts associated with the construction or relocation of utilities would be less than significant.

Question B

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

Less than Significant. The Proposed Project would not require water supplies once operational. Construction of the Proposed Project would require minimal amounts of water for activities such as washing aggregates, dust suppression, and washing surfaces. However, water would be limited during the construction phase and quantities are not anticipated to be significant. Water would be used from nearby fire hydrants as required and the contractor would obtain all necessary permits and a fire service meter from the City. Impacts to water supplies would be less than significant.

Question C

Would the project: Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less than Significant. As described above, the Proposed Project involves the replacement, relocation, and/or installation of sewer and water pipeline segments. In some cases, this involves the upsizing of sewer and/or water pipeline segments. The Proposed Project itself does not directly generate wastewater; however, the improved sewer lines would continue to transport wastewater to the wastewater treatment provider (the City). Because the Proposed Project is part of the City Council Adopted Strategic Roadmap to improve utilities infrastructure and is accounted for in the City's 2015 CSMP and the City's General Plan, potential capacity increases due to upsizing of sewer lines are already anticipated and accounted for, and are necessary to continue serving residents of the City. Impacts would be less than significant.

Question D

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?

Less than Significant. The Proposed Project would generate solid waste only during the construction phase, as existing pipeline is removed and replaced. However, the majority of pipeline to be replaced would be abandoned in place and significant amounts of solid waste are not anticipated. Because solid waste generated from the Proposed Project is expected to be minimal and temporary, impacts would be less than significant.

Question E

Would the project: Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. As mentioned above, the Proposed Project would only generate solid waste during the construction phase. Disposal of replaced pipeline would comply with federal, state, and local management and reduction statues and regulations related to solid waste. No impact would occur.

Cumulative Impacts

Less than Significant. Water and sewer utilities would be replaced, relocated, or installed as part of the Proposed Project. However, potential cumulative projects in the vicinity of the Project Site would be developed in accordance with local and regional planning documents. The Proposed Project is part of the City Council Adopted Strategic Roadmap to improve utilities infrastructure and is accounted for in the City's 2014 WSMP and 2015 CSMP, as well as the City's General Plan. Thus, cumulative impacts associated utilities are expected to be less than significant. Additionally, as discussed above, the Proposed Project is consistent with the General Plan Public Facilities and Services goals and policies, and thus would not contribute to cumulative impacts of utility and service systems.

3.20.4 MITIGATION MEASURES

None required.

3.21 Wildfire

3.21.1 ENVIRONMENTAL CHECKLIST

WILDFIRE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

3.21.2 SETTING

Regulatory Context

State Responsibility Areas

State Responsibility Areas (SRA) are lands in California where the California Department of Forestry and Fire Protection (CalFire) has legal and financial responsibility for wildfire protection and where CalFire administers fire hazard classifications and building standard regulations. Local Responsibility Areas (LRA) include land in cities, cultivated agricultural lands, unincorporated non-flammable areas, and lands that do not meet the criteria for SRA of Federal Responsible Areas. California PRC§§ 4201 through 4204 and California Government Code 51175-89 direct CalFire to map fire hazard zones within state SRAs and LRAs, respectively, based on relevant factors such as fuels, terrain, and weather. These zones, referred

to as FHSZs, are based on the physical conditions that give a likelihood that an area will burn over a 30 to 50-year period without considering modifications such as fuel reduction efforts. The zones also relate to the requirements for building codes designed to reduce the ignition potential to buildings in the wildland-urban interface zones.

Hayward 2040 General Plan

Applicable City General Plan goals, policies, and objectives include:

Policy Document part 3: Hazards

Goal HAZ-5	Protect life and minimize potential property damage from urban wildfire hazards in hillside area.

Environmental Setting

The City is urban in nature and largely developed. The City, including the Project Area, is not located in a SRA, but is rather located in an Incorporated LRA (CalFire, 2008). The Project Area is located within a FHSZ classification of "Non-Very High FHSZ". The closest land designated as a moderate/high FHSZ, is the rural and mountainous areas east, north, and southeast of the of the City of Fairview, approximately three miles east of the Project Area.

3.21.3 DISCUSSION OF IMPACTS

Question A

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant with Mitigation. The Project Area is not located in a SRA or a very high FHSZ. Construction associated with the Proposed Project would occur within tight and defined boundaries of each pipeline location point. Construction of the Proposed Project would result in temporary lane closures. Lane closures, if not properly regulated, could potentially impair an adopted emergency response or evacuation plan. This would be a potentially significant impact. However, as described in **Section 3.18.4**, **Mitigation Measures T-1** requires that a TCP be developed prior to the start of construction activities. The TCP would require that adequate emergency access is provided to all adjacent land use during construction activities. Therefore, with implementation of **Mitigation Measures T-1**, the Proposed Project would not interfere with an adopted emergency response plan or emergency evacuation plan in place through the State, County, or City. Impacts would be less than significant with mitigation.

Question B

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: 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?

No Impact. As mentioned above, the Proposed Project is not located in a SRA or a very high FHSZ. Pipeline upgrades would take place on relatively flat areas, predominantly surrounded by urban developed land. The Proposed Project does not involve unique slopes or other factors that would exacerbate wildfire risks. No impact would occur.

Question C

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. As mentioned above, the Proposed Project is not located in a SRA or a very high FHSZ. Construction associated with the Proposed Project would occur within tight and defined boundaries of each pipeline improvement location and is not expected to exacerbate fire risk. No impact would occur.

Question D

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. As mentioned above, the Proposed Project is not located in a SRA or a very high FHSZ. As stated in **Section 3.11.3,** the Proposed Project would not substantially alter the existing drainage pattern of the area around the improvement locations. Pipeline segments would be buried underground and would not expose people or structures to significant risks as a result of flooding, post-fire slope instability, or drainage changes. No impact would occur.

Cumulative Impacts

No Impact. The Proposed Project would have no cumulative impacts related to wildfire.

3.21.4 MITIGATION MEASURES

Implement **Mitigation Measure T-1**.

3.22 MANDATORY FINDING OF SIGNIFICANCE

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

Question A

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

Less than Significant with Mitigation. As discussed in the previous sections, the Proposed Project could potentially have significant environmental effects with respect to Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Transportation, Tribal Cultural Resources, and Wildfire. However, the impacts of the Proposed Project would be reduced to a less-than-significant level with the implementation of the mitigation measures identified in the sections.

Question B

Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less than Significant with Mitigation. Cumulative impacts for each resource area have been considered within the analysis of each resource area. When appropriate, mitigation measures have been provided to reduce all potential impacts to a less-than-significant level.

Question C

Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant with Mitigation. The potential direct environmental effects of the Proposed Project have been considered within the discussion of each environmental resource area in the previous sections. When appropriate, mitigation measures have been provided to reduce all potential impacts to a less-than-significant level.

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