# WILDCAT PUMPING PLANT PROJECT

# SAN PABLO, CALIFORNIA

# MITIGATED NEGATIVE DECLARATION

EBMUD

## EAST BAY MUNICIPAL UTILITY DISTRICT

**January 2023**

EBMUD

**NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION**
**Wildcat Pumping Plant Project**

**Project Title:** Wildcat Pumping Plant Project (Project)

**Lead Agency:** East Bay Municipal Utility District (EBMUD)

**Project Location:** Road 20 and El Portal Drive, City of San Pablo

**Project Description**: A new 25 million gallon per day (mgd) Wildcat Pumping Plant (PP) will be constructed on EBMUD property at the intersection of Road 20 and El Portal Drive to replace the existing Road 20 Portable PP, which is located on the same site alongside EBMUD's Road 20 Rate Control Station (RCS). The Project also includes approximately 725 feet of new storm drain pipeline to connect the site runoff to the City of San Pablo's existing storm drain system, and two below-ground air valves for surge protection. Upon construction completion and successful testing of the new PP, the existing Road 20 Portable PP will be removed from the site.

**Project Objective**: The Project will improve water service reliability to major portions of EBMUD's service area serving customers from Oakland to Crockett, be utilized for planned and unplanned outages of major water facilities (e.g., outages of EBMUD's Orinda Water Treatment Plant and Claremont Tunnel), and transport water during a seismic emergency, as well as in the event of a drought.

**Environmental Determination:** Pursuant to the requirements of the California Environmental Quality Act, an Initial Study was prepared for the Project. Based on the results of the Initial Study, it was determined that project-related construction work could potentially generate environmental impacts to cultural resources, transportation, and tribal cultural resources. Long-term PP operation would not generate significant impacts. Proposed mitigations would be incorporated into the Project and implemented to ensure that the Project would not generate a significant adverse impact on the environment. Based on this assessment, a "Mitigated Negative Declaration" has been prepared.

**Environmental Mitigation**: All impacts of the proposed Project would be reduced to Less than Significant levels by incorporation of mitigation measures.

**Public Comment/Review:** The Mitigated Negative Declaration is available for review at:

- East Bay Municipal Utility District, 375 11th Street, Oakland, CA 94607 (by appointment)
- EBMUD website (www.ebmud.com/WildcatPP)
- City of San Pablo Public Library, 13751 San Pablo Ave, San Pablo, CA 94806

**Public Meeting:** A virtual Zoom public meeting is scheduled for January 26, 2023 at 6:00 p.m. to review the Mitigated Negative Declaration. Zoom information will be available 72 hours before meeting on the Project website (www.ebmud.com/WildcatPP).

**Deadlines**: In accordance with Section 15073 of the California Environmental Quality Act Guidelines, this Mitigated Negative Declaration is available for public review from January 12, 2023 through February 14, 2023. Written comments on this Mitigated Negative Declaration must be received no later than 4:30 p.m. on February 14, 2023. Please address comments to East Bay Municipal Utility District, Anna Lau, Associate Civil Engineer, 375 11th Street, M/S 701, Oakland, California 94607, or email to WildcatPP@ebmud.com. Action on this Mitigated Negative Declaration is currently scheduled to be taken by the EBMUD Board of Directors at a regularly scheduled Board meeting in June 2023 at 375 11th Street, Oakland, CA.

1/12/2023
Date

Olujimi O. Yoloye
Director of Engineering and Construction

## TABLE OF CONTENTS



## TABLES

## FIGURES



## APPENDICES

# CHAPTER 1
# SUMMARY

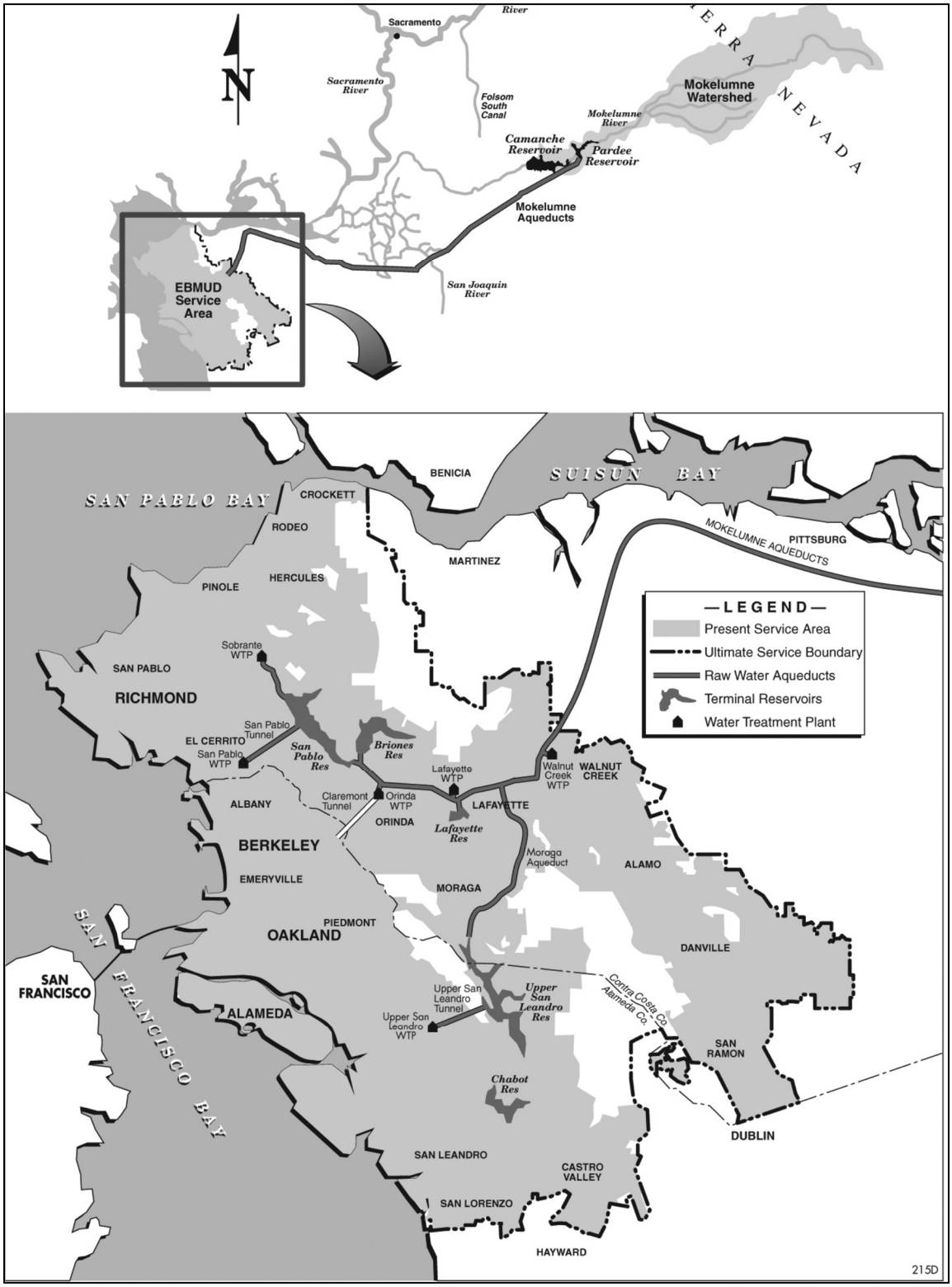
East Bay Municipal Utility District (EBMUD) provides water service to 20 incorporated cities and 15 unincorporated areas in Alameda and Contra Costa Counties (Figure 1-1). The water distribution system is comprised of six water treatment plants, 167 potable water reservoirs, 131 pumping plants, over 4,200 miles of potable (treated water) distribution and transmission pipes, and numerous accessory structures that altogether provide water service to EBMUD's approximately 1.4 million customers.

## 1.1. Project Objective

The Wildcat Pumping Plant (PP) Project (Project) would construct a new PP on EBMUD property on the south side of El Portal Drive just east of its intersection with Road 20 in the City of San Pablo. Currently, the site contains the existing Road 20 Rate Control Station (RCS) , Road 20 Portable PP, and a parking lot that has been leased to an adjacent apartment complex.

The new PP would improve the reliability of water service to major portions of the EBMUD's western service area and provide transmission capacity south from the Sobrante Water Treatment Plant (WTP) during planned and unplanned outages of the Orinda WTP, Claremont Tunnel, or the Wildcat Aqueduct. The Wildcat PP would also be used to distribute water that is stored in San Pablo Reservoir and treated at the Sobrante WTP for delivery to EBMUD's West of Hills service area, including drought years and during rate reductions at Orinda WTP due to planned and unplanned untreated water aqueduct and facility outages and reductions in Pardee Reservoir water quality.

The Project includes construction of a new 25 million gallon per day (mgd) PP, approximately 725 feet of new storm drain pipeline to connect the site runoff to the City of San Pablo's existing storm drain system, and two below-ground air valves for surge protection. Upon construction completion and successful testing of the new PP, the existing Road 20 Portable PP would be removed from the site. Figure 1-2 shows a Project vicinity map.




**East Bay Municipal Utility District Service Area**
**Figure 1-1**


**Project Vicinity Map**
**Figure 1-2**

## 1.2. Purpose of Mitigated Negative Declaration

This Mitigated Negative Declaration (MND) assesses the potential environmental impacts related to the Project proposed by EBMUD and has been prepared in accordance with the California Environmental Quality Act (CEQA) statutes and guidelines in which EBMUD is the lead agency. EBMUD has incorporated mitigations into the Project to mitigate the potentially significant impacts identified in the Initial Study such that no significant impacts would occur. These mitigations are summarized in the attached Mitigation Monitoring and Reporting Program (MMRP), see Appendix A.

## 1.3. Summary of Environmental Considerations

Based on the results of the Initial Study, project-related construction work could potentially generate environmental impacts to cultural resources, transportation, and tribal cultural resources. Mitigation measures incorporated into the Project that would reduce impacts to Less than Significant levels are discussed in Chapter 3 of this MND. Long-term PP operation would not generate any significant impacts. EBMUD determined that an MND is the appropriate level of CEQA review for this Project. The mitigations that have been incorporated in the Project are summarized in the attached MMRP, see Appendix A.

## 1.4. List of Referenced Studies by Environmental Topic

A list of studies referenced in this MND is provided below.

**Aesthetics** – Panorama, May 2021. Wildcat Pumping Plant Project Aesthetics Conceptual Design Report.

**Air Quality** – Panorama, June 2021. Wildcat Pumping Plant Project Air Quality Technical Report.

**Biological Resources** – Panorama, June 2021. Wildcat Pumping Plant Project Biological Resources Technical Report.

**Cultural Resources** – Panorama, August 2021. Wildcat Pumping Plant Project Cultural Resources Assessment Report

**Greenhouse Gas Emissions** – Panorama, June 2021. Wildcat Pumping Plant Project Greenhouse Gas Technical Report.

**Noise** – Panorama, June 2021. Wildcat Pumping Plant Project Noise Technical Report.

**Transportation** – Panorama, May 2021. Wildcat Pumping Plant Project Transportation and Traffic Technical Report.

## 1.5. Circulation of the MND

In accordance with CEQA, a good faith effort has been made by EBMUD during the preparation of the Initial Study and MND to contact affected agencies, organizations and persons who may have an interest in the Project. In reviewing the Initial Study and MND, affected persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and the ways in which the significant effects of the Project were avoided or mitigated.

Comments on the Initial Study and MND may be made in writing before the end of the comment period. A 30-day review and comment period has been established in accordance with §15205(d) of the CEQA Guidelines. Following the close of the public comment period, which ends on February 14, 2023 at 4:30 p.m., EBMUD will consider this Initial Study and MND and comments thereto in determining whether to approve the proposed Project.

The Initial Study and MND are available online on EBMUD's webpage (https://www.ebmud.com/wildcatpp). Written comments should be sent to EBMUD's street address or email address as follows:

East Bay Municipal Utility District
Anna Lau, Associate Civil Engineer
375 11th Street, M/S 701
Oakland, CA 94607

*or*

WildcatPP@ebmud.com

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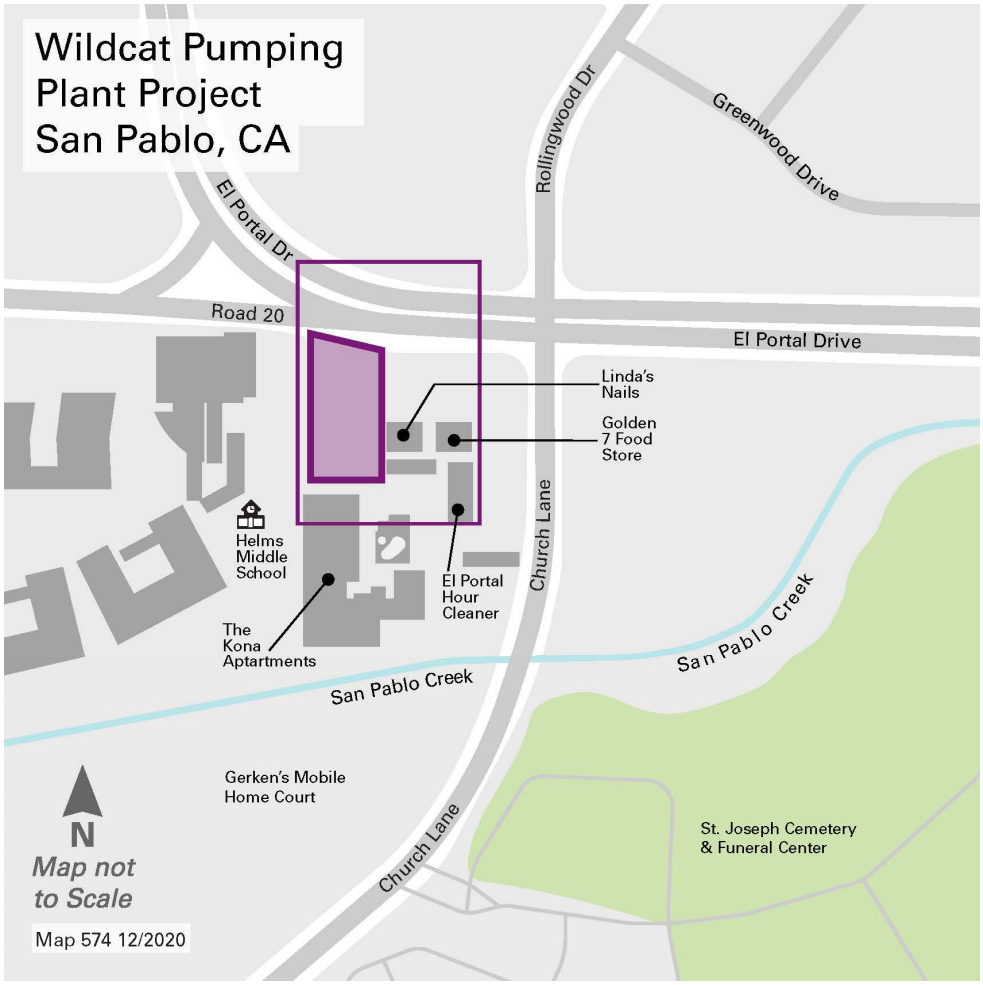
# CHAPTER 2
# PROJECT DESCRIPTION

## 2.1 Overview

East Bay Municipal Utility District's (EBMUD's) proposed Wildcat Pumping Plant (PP) will be located on the south side of El Portal Drive just east of its intersection with Road 20 in the City of San Pablo. The purpose of the Wildcat PP Project (Project) is to improve the reliability of water service to major portions of the Aqueduct Pressure Zone[1] (PZ) and provide transmission capacity south from the Sobrante Water Treatment Plant (WTP) during planned and unplanned outages of the Orinda WTP, Claremont Tunnel, or the Wildcat Aqueduct; such outages could be planned shutdowns for maintenance or inspection or unplanned due to a major earthquake. The Wildcat PP would also be used to distribute water that is stored in San Pablo Reservoir and treated at Sobrante WTP for delivery to EBMUD's West of Hills service area, including drought years when supplemental water supplies are stored in San Pablo Reservoir and during rate reductions at Orinda WTP due to planned and unplanned untreated water aqueduct and facility outages and reductions in Pardee Reservoir water quality. Figure 2-1 shows a Project vicinity map.

[1] A Pressure Zone is defined as an area bounded by both an upper and lower elevation, all of which receives water from a set water surface. The set water surface is usually provided by one or more storage tanks.




**Project Location**
**Figure 2-1**

## 2.2 Existing Deficiencies

EBMUD's service area is divided into two major geographical regions: West of Hills and East of Hills. The West of Hills area stretches from the City of Crockett to portions of the City of Hayward. The major PZs serving the West of Hills area are Central, Aqueduct, and Upper San Leandro PZs. The Aqueduct PZ is located in a narrow corridor north and south of Highway 24 and west of the Oakland-Berkeley Hills, traversing the cities of Berkeley, Albany, Richmond, San Pablo, El Cerrito, and Oakland. Water is typically supplied to customers in the Aqueduct PZ by gravity from the Orinda WTP via the Claremont Tunnel. When the Claremont Tunnel, Orinda WTP, and/or portions of the Wildcat Aqueduct between El Cerrito Center and Claremont Center are out of service, the existing Road 20 Portable PP (approximately 10 million gallons per day [mgd] capacity) located at the site of the proposed Wildcat PP, and the San Pablo WTP, a standby facility, have historically been used to supply water to the Aqueduct PZ. However, the San Pablo WTP is an aging facility that has not been regularly maintained or improved to meet changing regulations and is planned for decommissioning. The Road 20 Portable PP is a temporary facility that cannot meet all the demands in the Aqueduct PZ and upper cascades; therefore, the new Wildcat PP is needed to permanently offset the loss in transmission capacity.

## 2.3 Proposed Project

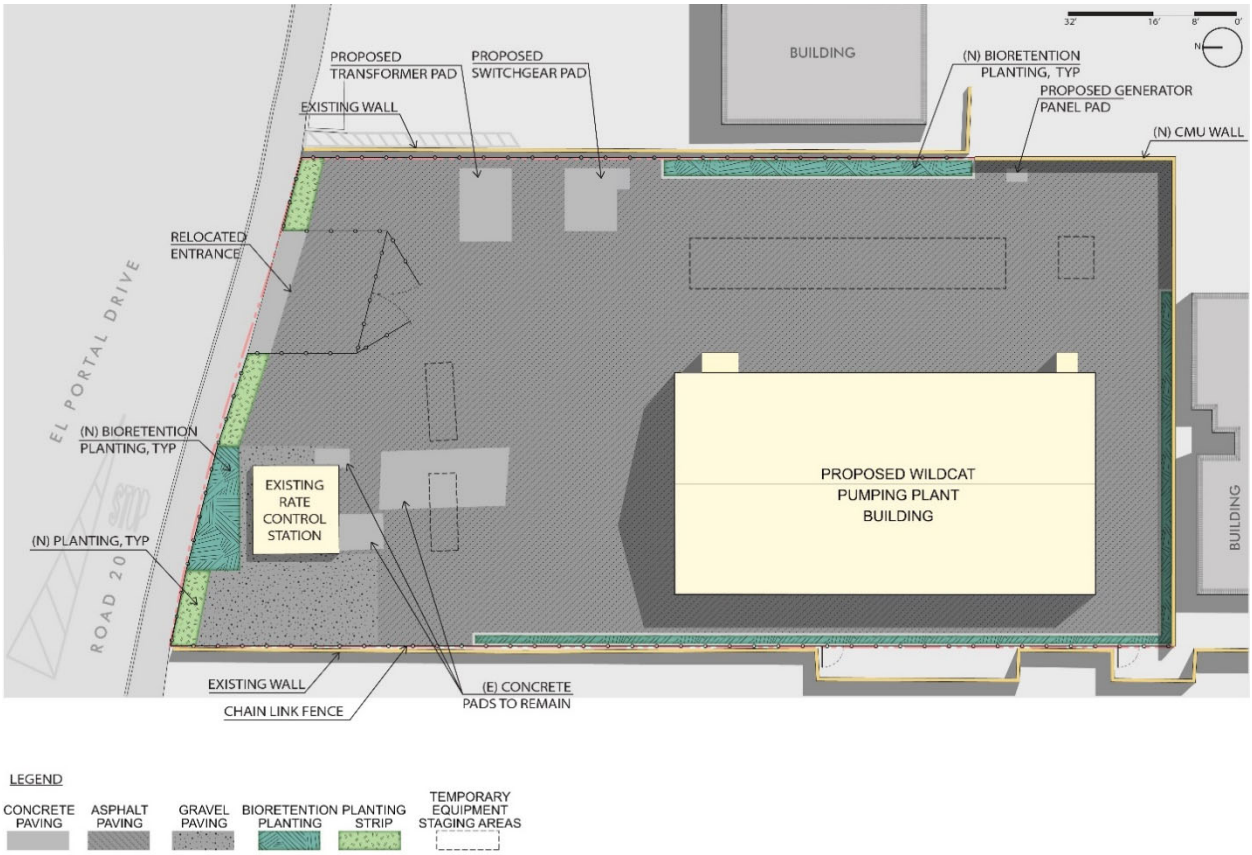
### New Wildcat Pumping Plant

The Project will construct a new pumping plant on EBMUD property on the south side of El Portal Drive just east of its intersection with Road 20 in the City of San Pablo. Currently, the site contains the existing Road 20 Rate Control Station[2], Road 20 Portable PP, and a parking lot that has been leased to an adjacent apartment complex belonging to Elliot Ventures, Inc. EBMUD anticipates terminating the lease[3] prior to the commencement of Project construction so the entire property will be available for site development.

The new Wildcat PP will include four approximately 8 mgd variable frequency drive pumps with a total capacity of 25 mgd and an in-conduit hydroelectricity system. The in-conduit hydroelectricity system includes a microturbine, control valve, piping, and electrical cable, conduit, and cabinets. The in-conduit hydroelectricity system will generate electricity from excess pressure; the average electricity produced is estimated to be approximately 145kW. In addition, the in-conduit hydroelectricity system has a pressure management feature which enhances water loss control by reducing background leakage and pipeline breaks in the distribution system. The in-conduit hydroelectricity system would be operated remotely by EBMUD staff similar to the existing operations of the Road 20 Rate Control Station. Figure 2-2

[2] A Rate Control Station is a system of pressure sensors and valves that can be opened or closed to allow flow from a higher pressure zone to a lower pressure zone.
[3] The current ground lease agreement, dated October 22, 2019, has outlined EBMUD's intent to use the parking lot site for construction of the Wildcat Pumping Plant for public purposes. The lease is set to expire on September 30, 2023 with no right of renewal.

shows a conceptual site plan depicting major Project components at the new pumping plant site, all of which are further described below.




**Conceptual Site Plan for New Wildcat PP Site**
**Figure 2-2**

The pumping plant building will be approximately 40-feet by 80-feet with a footprint of approximately 3,200 square feet. The roof will be steel-framed gable form, sloped at 3:12 with the ridgeline (i.e., high point) height approximately 24-feet from ground elevation. Roofing material is standing seam metal and the roof structure will be composed of exposed steel beam. The pumping plant building material will be poured-in-place reinforced concrete construction with form liners. To maintain a high level of security and noise control, there are no windows in the walls or doors of the pumping plant building. Lockable access hatches are required in the roof above each pump unit to facilitate the installation and removal of pump units vertically through the roof for future maintenance. Power for the pumping plant will be supplied by Pacific Gas & Electric (PG&E) and will require the installation of an outdoor transformer and switchgear electrical equipment. The site will also include a generator connection panel and automatic transfer switch for an emergency portable generator and portable diesel tank that may be temporarily staged on site. EBMUD will remotely operate and monitor the pumping plant, requiring installation of an antenna attached to the building's roof approximately 25-feet in height from ground elevation.

The existing Road 20 Portable PP connections will remain for emergencies and planned and unplanned outages of the Wildcat PP. However, the Road 20 Portable PP will be removed from the site when the construction of the new Wildcat PP is completed.

Similar to existing conditions, an eight-foot-high, black-vinyl-coated security chain link fence, as shown in Figure 2-3, and gates will be installed along the property line to enclose the site. An eight-foot-high concrete masonry unit (CMU) wall topped with barbed wires, similar to Figure 2-4, will be installed in place of the chain link fence on the south and southeastern sides of the property, adjacent to the apartment complex, for security and privacy.

**Example Installation of Security Chain Link Fence**
**Figure 2-3**

**Example Installation of CMU Wall**
**Figure 2-4**

Consistent with Provision C.3 in the Municipal Regional Permit (MRP) for Contra Costa County, the site is designed to retain a portion of stormwater runoff through existing impervious surfaces (e.g., gravel area) and new bioretention planters and landscape features, as shown in Figure 2.5, which would be connected by approximately 260 feet of underground drainage pipelines onsite. The onsite drainage system will connect to a new manhole and storm drain pipeline on El Portal Drive, which would extend westerly for approximately 725 feet before connecting to an existing curb inlet on the south side of Road 20, as shown in Figure 2-5. Approximately 170 feet of new 36-inch suction and discharge pipelines[4] will be installed onsite to connect the new Wildcat PP to the existing Wildcat Aqueduct. The site will include paved areas for access and parking for operation and maintenance of the pumping plant. Thirteen existing trees on the site will need to be removed for the construction of the pumping plant building and associated equipment and to provide access for maintenance.

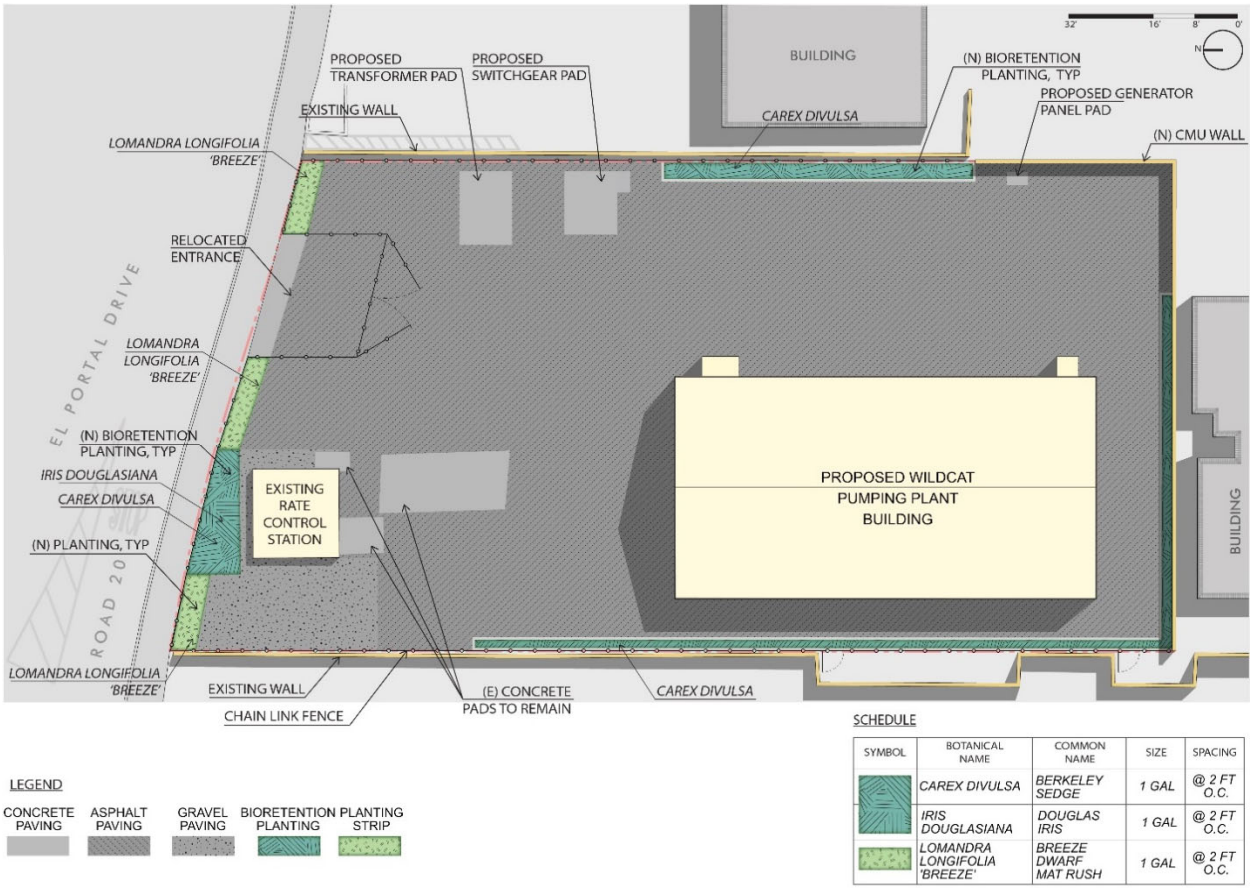
A hydraulic transient analysis for the Wildcat PP (EBMUD, 2020) concluded that installation of surge-protection devices on the discharge side of the pumping plant was necessary to protect portions of the Aqueduct PZ from pipeline failure and fatigue due to negative pressures following an uncontrolled pump shutdown. The results of the analysis show that the initial downsurge could potentially cause cavitation and column separation at critical high elevations near 1303 Walnut Street in the City of Berkeley and on the suction side of the Crockett PP in the City of San Pablo. An existing 4-inch below-ground air valve is located within a manhole on the roadway near 1303 Walnut Street in the City of Berkeley. Because the transient analysis has identified this as a critical location, this air valve will be replaced with a 4-inch, slow-venting air valve to reliably prevent cavitation. For the same reason, a new 2-inch, slow-venting air valve will be installed at Crockett PP west of San Pablo Avenue at Robert Miller Drive in the City of San Pablo.

[4] A suction pipeline is the pipeline that supplies water to the pumping plant from a water source such as a storage tank. A discharge pipeline is the pipeline that supplies water from the pumping plant to a storage tank and/or customers.


**Project Area Map**
**Figure 2-5**

EBMUD would implement the design elements outlined in the Wildcat Pumping Plant Project Aesthetics Conceptual Design Report, May 2021. The proposed site landscaping is shown on Figure 2-6 and would include the following elements:

- Paved construction staging and lay-down areas between the PP building and surrounding site boundaries, including a small parking area for staff access to the PP building.
- Several bioretention basins with low-maintenance, drought-tolerant plants, and a narrow landscaping planter with low lying grasses.
- Anti-climb security fencing and CMU wall with barbed wire.
- Recycled materials implemented, where feasible.




**Conceptual Landscape Plan for New Wildcat PP Site**

**Figure 2-6**

## 2.4 Environmental Setting

The Project site is approximately 0.38 acres and is bounded on the west by a CMU wall of the Helms Middle School parking lot, to the south by an apartment complex, to the east by a nail/hair salon and grocery store, and to the north by a sidewalk on El Portal Drive. There is an apartment house complex across El Portal Drive approximately 100 yards north of the property.

El Portal Drive is a major local thoroughfare running east and west in the City of San Pablo. El Portal Drive is approximately 70 feet wide, divided in places, and serves as a major artery linking the Eastshore I-80 Freeway with San Pablo Avenue and points west of the City of San Pablo proper. El Portal Drive supports a wide variety of service type businesses consisting of restaurants, fast food establishments, laundries, gas stations, and residential units, primarily two-level apartment house dwellings.

The property is currently fenced and mostly paved with the exception of 13 trees ranging in size from 6 to 48 inches in diameter at breast height. The northern part of the site now serves as the location of the Road 20 Rate Control Station, a partially buried concrete vault that controls flows for existing pipeline facilities in El Portal Drive, which will be left in place during and after construction of the new pumping plant. The south side of the property is currently leased to a residential establishment under a revocable lease arrangement. Upon commencement of the

Project, the southern part of the property will be returned to EBMUD for construction of the pumping plant building and associated equipment.

## 2.5 Construction Activities

2.5.1 **Construction Access** – Construction access routes to the Wildcat PP will be from Interstate 80 (I-80); from the south via San Pablo Dam Road and San Pablo Avenue; from the north via El Portal Drive, Church Lane, and San Pablo Avenue.

2.5.2 **Construction Equipment** – Equipment anticipated to be used during the Project construction include: asphalt paver, backhoe, boom truck, chain saw, compactor (plate), compactor (roller), concrete mixer truck, concrete pump truck, concrete saw, crane, drill rig, excavator, haul truck, HDPE fusion machine, forklift, generator, material truck, street sweeper, various passenger vehicles, and truck-mounted equipment for welding of pipelines. Construction activity, duration, and resulting vehicle trips are listed in Table 2-1.

2.5.3 **Staging Area** – During the construction phase, equipment and materials would be staged onsite and at a nearby offsite location chosen by the Contractor as necessary.

2.5.4 **Construction Schedule** – Construction work could occur between 7:00 a.m. and 7:00 p.m., Monday through Friday, with an exception for emergencies. A typical eight-hour workday between Monday and Friday serves as the basis for estimating construction activity durations in this Mitigated Negative Declaration (MND). The proposed storm drain pipeline would be constructed between the months of June and September when school is out of session. There would be no storm drain pipeline construction activity during the normal school year for the Walter T. Helms Middle School.

2.5.5 **New Pumping Plant Construction** – The construction activities associated with the new PP are described as follows. Existing trees will be removed, followed by excavation of the pumping plant building foundation and grading of the pumping plant pad, switchgear pad, and transformer pad. After the grading for the pumping plant pad is completed, concrete foundations and walls will be poured in place and building construction will occur, which includes the concrete foundation, concrete walls, roof, and outdoor transformer and switchgear pads. Next, pumps, motors, electrical equipment, in-conduit hydroelectricity system, outdoor antenna, and site pipelines will be installed. Portions of the offsite drainage construction may occur concurrently with the pumping plant construction and include locating and marking underground utilities, saw-cutting pavement, excavating the trench and hauling off the trench soils for disposal, partial street closures, installing new storm drain pipelines, imported bedding, and backfill into the trench, connecting to the existing storm drain system, testing and inspection, and repaving. After construction of the pumping plant is completed, the pumping plant equipment will be tested. The final activities at the site will include final site grading, installation of permanent fencing, construction of a CMU wall, construction of a new driveway, landscaping, and site paving.

## TABLE 2-1
## Construction Activities Associated with Wildcat Pumping Plant Project*

| Construction Phase | Approx. Duration (weeks) | Major Equipment | Haul/ Material Trucks (per day) | Max Hourly One-Way Trips | |
|---|---|---|---|---|---|
| | | | | Worker Vehicles | Trucks |
| Mobilization | 1 | Backhoe, Haul Truck | 2 | 2 | 1 |
| Site Preparation and Tree Removal | 1 | Backhoe, Chain Saw, Haul Truck | 2 | 8 | 1 |
| Initial Excavation and Grading | 2 | Backhoe, Excavator, Drill Rig, Haul Truck | 10 | 6 | 3 |
| Pumping Plant Construction (Concrete Work) | 26 | Concrete Mixer Truck, Concrete Pump Truck, Material Truck | 7 | 10 | 2 |
| Pumping Plant Construction (Other) | 19 | Boom Truck, Crane, Forklift, Material Truck | 2 | 8 | 1 |
| Pumping Plant Suction and Discharge Pipelines | 2 | Asphalt Paver, Backhoe, Compactor (Plate), Excavator, Generator, Haul Truck, Material Truck, Welding Machine | 23 | 11 | 6 |
| Pumping Plant Equipment Testing | 10 | N/A | 0 | 4 | 0 |
| Pumping Plant On Site Drainage | 1 | Asphalt Paver, Backhoe, Compactor (Plate), Haul Truck, HDPE Fusion Machine, Material Truck | 6 | 13 | 2 |
| Off-Site Storm Drain Installation on Road 20 | 2 | Asphalt Paver, Backhoe, Compactor (Plate), Compactor (Roller), Concrete Saw, Excavator, Haul Truck, HDPE Fusion Machine, Material Truck, Street Sweeper | 7 | 15 | 2 |
| Final Grading, Backfill, and Paving | 2 | Asphalt Paver, Backhoe, Compactor (Plate), Compactor (Roller), Excavator, Haul Truck, Material Truck | 10 | 6 | 3 |
| Civil Site Work: CMU wall, Fence, Driveway, and Landscaping | 2 | Backhoe, Compactor (Plate), Concrete Mixer Truck, Concrete Saw, Haul Truck, Material Truck | 2 | 6 | 1 |
| Demobilization | 1 | Street Sweeper | 0 | 3 | 0 |
| **Total Duration (weeks)** | **69** | | | | |
| **MAXIMUM ONE-WAY TRIPS PER HOUR =** | | | | **15** | **Vehicles** |
| | | | | **6** | **Trucks** |

****Notes***

1. *Active construction time does not include down-time, submittal review, material procurement, or fabrication inspection and approval.*
2. *Work schedule: typical eight-hour workday (allowable construction hours: Monday-Friday between 7:00 a.m. and 7:00 p.m.)*
3. *Maximum hourly one-way truck trips are estimated by averaging the number of trucks going to and leaving the job site on a daily basis over an eight-hour period.*
4. *Maximum hourly one-way vehicle trips are estimated by assuming all workers are arriving and leaving the job site in a one-hour period expected to occur during a.m. and p.m. peak commute hours.*
5. *Haul trucks average twenty cubic yards (CY) per load; concrete trucks average nine CY per load; and material trucks average ten CY per load.*
6. *Assume that all excess soil excavation will be off-hauled.*
7. *Assume one worker per vehicle.*

## 2.6 Operations and Maintenance

Once constructed, the new PP would be operated and monitored remotely. The pumping plant site would be routinely inspected approximately twice per month by EBMUD's operations and maintenance staff. Long-term site maintenance, including keeping the site clean and free of debris, repairing damaged parts, and repainting the building, would continue.

## 2.7 Project Schedule

The EBMUD Board of Directors is expected to consider this MND and adopt it and approve the Project at a regularly scheduled meeting in 2023. The design will take approximately 18 to 24 months, beginning in 2023, and the construction of the new PP will take approximately two years, likely beginning in 2026.

## 2.8 EBMUD Practices and Procedures

EBMUD has incorporated a number of standard construction specifications, standard practices from EBMUD's Environmental Compliance Manual, and Engineering Standard Practices into the Project. These standard specifications and standard practices are designed to address typical characteristics of EBMUD construction projects and are not project-specific or tailored to the unique characteristics of the Project. These standard specifications and standard practices, which are applicable to all EBMUD projects and reflect generally applicable EBMUD standard operating procedures, are described in more detail below.

EBMUD maintains several Standard Construction Specification documents specifically related to environmental conditions, including:

- 01 14 11, Work Restrictions – This section describes special requirements and construction constraints (including work hours) that may affect Project construction.

- 01 18 05, Project Utility Sources and Site Conditions – This section describes special requirements for locating underground utilities and understanding existing site conditions.

- 01 35 24, Project Safety Requirements – This section includes provisions for the safety of the public and construction workers regarding hazards and hazardous materials.

- 01 35 44, Environmental Requirements – This section includes provisions related to water quality, dust and emissions control, noise and vibration control, hazardous materials control, and protection of biological and cultural resources.

- 01 55 26, Traffic Regulation – This section includes provisions for the regulation of traffic during construction and compliance with applicable traffic regulations requirements.

EBMUD Procedure 600, Public Outreach and Community Relations, promotes effective proactive communication and interaction with the public to maintain and enhance relationships between EBMUD and its customers. This procedure ensures residents are provided advance notice of potentially disruptive construction activities (e.g., noise, traffic) including geographical extent of activity and estimated duration of the activity. This procedure also provides mechanisms for customers and the public to get concerns and questions addressed.

EBMUD Procedure 711, Hazardous Waste Removal, defines hazardous waste and establishes responsibilities for removal of hazardous wastes from EBMUD facilities. This procedure outlines specific steps and responsibilities for: characterizing the waste and determining what analyses are needed to classify the waste; coordinating waste disposal, reuse, or recycling issues; labeling, storing, inspecting, and maintaining inventory records for the waste; and reviewing, signing, and tracking any hazardous waste handling and disposal requirements and hazardous waste manifests.

EBMUD's Engineering Standard Practice 512.1, Water Main and Services Design Criteria, and Engineering Standard Practice 550.1, Seismic Design Requirements, dictate basic requirements for water pipelines and design standards for pipelines to withstand seismic hazards.

EBMUD's Engineering Standard Practice 514, Identifying Buried Conflicts, provide guidelines for the investigation needed to identify existing underground utilities, and to establish a uniform approach for site reconnaissance of existing conflicts, such as active and abandoned utilities. Minimum steps required to identify utilities are also provided.

EBMUD's Pumping Plant Design Guide (2018) establishes minimum requirements to be followed in the design of EBMUD drinking water pumping plants. This guide details design criteria and conditions for pumping plants and outlines applicable codes and design standards.

Appendix B contains the table, EBMUD Practices and Procedures Monitoring and Reporting Plan. This table and discussion in the Initial Study detail these practices and procedures and describe their relationship to Project impacts.

## 2.9 Permits and Approvals

Table 2-2 provides a summary of the approvals and permits that EBMUD would be required to obtain prior to construction.

**Table 2-2**
**Agency-Required Approvals and Permits**

| Agency/Stakeholder | Type of Jurisdiction | Type of Approval |
|---|---|---|
| City of San Pablo | Local | Encroachment permit for construction within city streets and sidewalk. Approval for use of storm drains and/or sewer lines for dewatering activities. |
| California Air Resources Board (CARB) and Bay Area Air Quality Management District (BAAQMD) | State | Permit for portable equipment registration and approval for emissions generated from construction of the Project. |
| San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) | State and Federal | National Pollutant Discharge Elimination System (NPDES) Construction General Permit and Waste Discharge Requirements for dewatering. |

Under Section 53091 of the California Government Code, EBMUD, as a local agency and utility district, is not subject to building and land use zoning ordinances (such as tree ordinances) for projects involving facilities for the production, generation, storage, treatment, or transmission of water. However, EBMUD's practice is to work with local jurisdictions and neighboring communities during project planning and to consider local environmental protection policies for guidance.

# CHAPTER 3
# ENVIRONMENTAL ANALYSIS

## 3.1. Project Information

| | | |
|---|---|---|
| 1. | Project Title: | Wildcat Pumping Plant Project |
| 2. | Lead Agency Name and Address: | East Bay Municipal Utility District (EBMUD)<br>Water Distribution Planning Division – MS 701<br>375 11th Street<br>Oakland, CA 94607 |
| 3. | Contact Person: | Anna Lau, Associate Civil Engineer<br>(510) 986-7662 |
| 4. | Project Location: | New PP to be located on EBMUD-owned property at intersection of Road 20 and El Portal Drive, Oakland, CA.<br><br>New storm drain pipeline to be installed along Road 20, between El Portal Drive and San Pablo Ave, San Pablo, CA.<br><br>New air valves installed at 1303 Walnut Street, Berkeley, CA and at EBMUD's Crockett PP site, west of San Pablo Avenue at Robert Miller Drive, San Pablo, CA. |
| 5. | Project Sponsor's Name and Address: | East Bay Municipal Utility District<br>Water Distribution Planning Division – MS 701<br>375 11th Street<br>Oakland, CA 94607 |
| 6. | General Plan Designation: | Commercial Mixed-Use |
| 7. | Zoning: | CMU – Commercial Mixed-Use District |
| 8. | Description of Project: | Please see Chapter 2 of the MND. |
| 9. | Surrounding Land Uses and Setting: | Parcels surrounding the Project site are medium density residential, public/institutional, and commercial mixed-use. |
| 10. | Other Public Agencies Whose Approval is Required: | 1. Regional Water Quality Control Board: Storm Water Pollution Prevention Permit<br><br>2. California Air Resources Board: registration of portable engines, air compressors and generators<br><br>3. Bay Area Air Quality Management District: Notification Form for Road Construction and Maintenance Operation<br><br>4. Encroachment permits: City of San Pablo |

## 3.1.Environmental Factors Potentially Affected

The environmental factors checked below could potentially be affected by this Project, but impacts would be mitigated to a less than significant level as indicated by the checklists on the following pages.

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

## 3.2. Environmental Determination

On the basis of this initial evaluation:

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

☒ I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the applicant. 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" 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 pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier Environmental Impact Report, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Olujimi O. Yoloye, Director of Engineering and Construction

1/12/2023
Date

## 3.4. Evaluation of Environmental Impacts and Initial Study Checklist

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D) (2017 CEQA Guidelines). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a. The significance criteria or threshold, if any, used to evaluate each question.

   b. The mitigation measure identified, if any, to reduce the impact to less than significant.

### 3.4.1 Aesthetics

| Would the Project: | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ☐ | ☒ |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcropping, and historic buildings within a state scenic highway? | ☐ | ☐ | ☐ | ☒ |
| c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage 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 which would adversely affect day or nighttime views in the area? | ☐ | ☐ | ☒ | ☐ |

**DISCUSSION**

The Project site is located in a predominantly flat, mixed-use residential and commercial neighborhood, adjacent to the El Portal neighborhood, that spans from Contra Costa College to Road 20, and the Rollingwood neighborhood adjacent to El Portal Drive. The Project site is approximately 65 feet above sea level and spans approximately 16,662 square feet and is almost entirely paved. The site contains a portable PP, an RCS structure as well as various supporting electrical equipment and other facilities (see Figure 3.4.1-1 below). Thirteen existing trees would be removed prior to construction to accommodate the new PP building and associated facilities, and to provide access for maintenance. To the north, the site fronts onto the merging of Road 20 (west of the site) and El Portal Drive (east of the site). An existing six-foot concrete sidewalk separates the site from the merging of these two streets. One-story commercial structures and related parking are located to the east of the site. A multi-story apartment complex (Kona Apartments) is located south of the site at 2645 Church Lane. A 6,720 square foot portion of the Project site has been leased to Kona Apartments for parking and would be returned to EBMUD prior to construction of the new PP. The Walter T. Helms Middle School is located to the west of the site and is separated from the Project site by an existing six-foot-high CMU wall.

The new storm drain pipeline and air valve construction would all be completed underground, and ground surfaces would be restored to their former condition at the completion of construction activities.


**Existing Wildcat PP Site (as seen looking south from El Portal Drive)**
**Figure 3.4.1-1**

**a. No Impact.**

A scenic vista is defined as a distant view encompassing valued natural or built landscape features such as ridgelines, water bodies, landmark features or open space lands. The 58-acre St. Joseph Cemetery, located at 2540 Church Lane, is the nearest dedicated open space to the Project site. However, the Project is not expected to be visible from the St. Joseph Cemetery due to neighboring buildings and trees at the San Pablo Creek. There are no other scenic vistas identified in the City of San Pablo General Plan that are in close proximity to the Project site. The new storm drain pipeline and air valve construction would all be completed underground and therefore would not be visible after construction. The Project site would not result in visual changes that would be seen in the same view as any areas of great visual importance in the San Pablo General Plan; therefore, construction and operation of the Project would have no impact on a scenic vista.

**b. No Impact.**

Interstate 80 (I-80) is the only highway that passes through San Pablo and is neither designated nor eligible as a scenic highway in the area. Additionally, the Project site is not visible from the highway. Therefore, construction and operation of the Project would have no impact on a designated state scenic highway.

**c. Less than Significant Impact**.

The City of San Pablo is considered an urbanized area, as defined in CEQA Guidelines Section 15387, and as mapped by the U.S. Census (2010); thus, impacts are considered in the context of the potential to conflict with applicable zoning and other regulations governing scenic quality.

The City of San Pablo relies on the General Plan and Zoning Ordinance to initiate design standards that affect the scenic vistas within the city. Chapter 3, Land Use and Physical

Design, of the San Pablo General Plan provides policies and guidance for the development of the City's built environment. These policies seek to enhance San Pablo's image as a unique community with diverse architectural styles and promote concepts such as pedestrian-oriented streets, landscaped streetscapes, and environmentally responsible design.

The architecture of the new PP would be a California Mission Style concept that utilizes building materials, colors, and features that blend the facility into the predominantly mixed-use residential and commercial neighborhood (see Figure 3.4.1-2). The building features beige stucco cladding with contrasting trim over cast-in-place concrete walls. The building is topped by a steel-framed terra cotta-colored standing seam metal roof, which emulates the design of the adjacent Walter T. Helms Middle School and blends the PP building and site into the school campus. As described in the Project Description, the landscaping would include drought-tolerant planting in bioretention basins as well as a narrow strip of native grasses along the northern fence, adjacent to the public sidewalk. Plants in the bioretention basins include Berkeley sedge (*Carex divulsa*) and Douglas iris (*Iris douglasii*). The landscape areas adjacent to the sidewalk consist of Lomandra (*Lomandra longifolia* 'Breeze') grass species.

The architectural design utilizes building materials, colors, and features to integrate a utilitarian facility into a suburban neighborhood and the landscape design utilizes grasses and plants to soften the industrial appearance of the proposed facility, giving it an appearance that is more compatible with a mixed residential and commercial neighborhood, while providing an attractive and functional setting for the site. The areas designated for planting have been placed adjacent to the public sidewalk where they are most visible in order to improve the visual appearance of the property and reduce stormwater runoff from the site.

**New Wildcat PP Site Architecture and Landscaping (as seen looking south from El Portal Drive)**

**Figure 3.4.1-2**

Because the Project adheres to the San Pablo's General Plan and does not conflict with applicable zoning or other regulations governing scenic quality, the Project would not degrade the existing visual character or quality of the surrounding mixed residential and commercial area; therefore, the Project impacts are less than significant.

**d. Less than Significant Impact.**

After construction is complete, the PP site would have motion detected security lighting once it is in operation. Periodically, this lighting may be on consistently, in non-motion detect mode, if evening maintenance is required. Infrequent use and uses in short duration of the security lighting would ensure that the lighting is not a substantial new source of light in the area. The lighting would also include luminaire shields to ensure that no light is directed off the Project site or into the sky.

Although it is not expected, nighttime construction may be a temporary new light source if construction occurs up to 7 pm during winter periods when it gets dark before 6 pm. Should construction need to occur at night, lighting would be used to illuminate the construction area. The construction lighting may be visible to adjacent residences and along public roadways. Although the use of construction lighting at night would be temporary, the impact from night lighting on nighttime views could be potentially significant.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 3.4., Lighting Used During Nighttime Work, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, which requires the

shielding of night lighting to be directed downward or oriented such that the light source is not directed toward residential areas or into streets. By directing the light source away from residential areas and streets, the nighttime lighting would be kept contained on the Project site, reducing the potential to create a new source of light or glare that would adversely affect nighttime views in the area.

With implementation of the requirements specified in EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, including Section 3.4., Lighting Used During Nighttime Work, which requires the shielding of night lighting, the Project would not increase or create a new source of substantial light that would adversely affect views; therefore, the Project impacts would be less than significant.

## REFERENCES

Panorama Environmental, Inc., MWA Architects, and Dillingham Associates. (2021). *East Bay Municipal Utility District Wildcat Pumping Plant Project Aesthetics Conceptual Design Report.*

City of San Pablo. (2011, April). *San Pablo General Plan 2030.*

California Department of Transportation (Caltrans). (2019). *California Scenic Highway Mapping System*. Retrieved from https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=2e921695c43643b1aaf7000dfcc19983.

## 3.4.2 Agriculture and Forestry Resources

| **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:** | **Potentially Significant Impact** | **Less than Significant with Mitigation Incorporated** | **Less than Significant Impact** | **No Impact** |
|---|---|---|---|---|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), 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? | ☐ | ☐ | ☐ | ☒ |

## DISCUSSION

**a. No Impact.**

The Project site is not designated as prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The California Department of Conservation designates the Project sites as "Urban and Built-Up Land" (California Department of Conservation, 2014). The Project site is located within an urban area surrounded by residential and commercial uses. Therefore, there would be no impact associated with converting farmland to non-agricultural use.

**b. No Impact.**

The Project site is not currently zoned for agricultural use nor under a Williamson Act contract for agricultural preservation.

**c. No Impact.**

The Project site is not currently zoned for forest land, timberland, or timberland zoned Timberland Production.

**d and e. No Impact.**

The Project site would not involve changes that could result in loss of forest land or conversion of forest land to non-forest use, or conversion of Farmland to non-agricultural use. The Project site does not occur on forest land or Farmland.

## REFERENCES

California Department of Conservation. (2014). *Division of Land Resource Protection, Farmland Mapping and Monitoring Program, California Important Farmland Finder*. Retrieved from https://maps.conservation.ca.gov/DLRP/CIFF/.

## 3.4.3 Air Quality

| Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ☒ | ☐ |
| b) Result in a cumulatively considerable net increase of any criteria pollutant 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? | ☐ | ☐ | ☒ | ☐ |

**DISCUSSION**

The air quality impact analysis is based upon the Wildcat Pumping Plant Project Air Quality Technical Report (Panorama, 2021) that includes a review of existing air quality information and research and analysis completed for the Project site and new storm drain pipeline alignment. The air quality impact analysis considers both operational and construction impacts associated with the proposed Project.

The Bay Area Air Quality Management District (BAAQMD) is the regional agency responsible for air quality regulation within the San Francisco Bay Area Air Basin (SFBAAB), which encompasses nine counties in the San Francisco Bay Area and covers all Project sites. BAAQMD regulates air quality through its planning and review activities and has permit authority over most types of stationary emission sources. BAAQMD can require stationary sources to obtain permits and can impose emission limits, set fuel or material specifications, or establish operational limits to reduce air emissions. BAAQMD also regulates new or expanding stationary sources of toxic air contaminants.

The BAAQMD *CEQA Air Quality Guidelines* (BAAQMD Guidelines) advise lead agencies on how to evaluate potential air quality impacts, including establishing quantitative and qualitative thresholds of significance. In June 2010, the BAAQMD adopted updated BAAQMD Guidelines, including new thresholds of significance, and revised them in May 2011. The BAAQMD issued an interim update to the BAAQMD Guidelines (dated May 2017), which includes thresholds of significance consistent with those adopted in 2010. These thresholds were designed to establish the level at which BAAQMD believes air pollution emissions would cause significant environmental impacts under CEQA. The 2017 BAAQMD Guidelines were used in this analysis.

**a. Less than Significant Impact.**

The most recently adopted air quality plan in the SFBAAB is the BAAQMD's *2017 Bay Area Clean Air Plan* whose primary goals are to protect public health and the climate. The 2017 BAAQMD Guidelines recommend that a project's consistency with the current air quality plan be evaluated using the following three criteria:

a. The project supports the goals of the applicable air quality plan.

b. The project includes applicable control measures from the air quality plan.

c. The project does not disrupt or hinder implementation of any control measures from the air quality plan.

If it can be concluded with substantial evidence that a project would be consistent with the above three criteria, then the BAAQMD considers the project to be consistent with the air quality plan prepared for the Bay Area.

The primary goals of the *2017 Bay Area Clean Air Plan* are to attain air quality standards, reduce population exposure, protect public health in the Bay Area, reduce Greenhouse Gas (GHG) emissions, and protect the climate. The *2017 Bay Area Clean Air Plan* includes a range of control measures, which consist of actions to reduce combustion-related activities, decrease fossil fuel combustion, improve energy efficiency, and decrease emissions of potent GHGs. Numerous measures address the reduction of several pollutants: Ozone precursors, Particulate Matter (PM), toxic air contaminants (TACs), and/or GHGs. Other measures focus on a single type of pollutant, potent GHGs such as methane and black carbon, or harmful fine particles that affect public health.

Suspended and Inhalable Particulate Matter ($PM_{10}$ and $PM_{2.5}$)
Particulate matter is a class of air pollutants that consists of solid and liquid airborne particles in an extremely small size range. Particulate matter is measured in two size ranges: $PM_{10}$ for particles less than 10 microns in diameter, and $PM_{2.5}$ for particles less than 2.5 microns in diameter. Motor vehicles generate about half of Bay Area PM through tailpipe emissions as well as brake pad and tire wear. Wood burning in fireplaces and stoves, industrial facilities, and ground-disturbing activities such as construction are other sources of fine particulates.

Ozone
Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides ($NO_x$). The main sources of ROG and $NO_x$, often referred to as ozone precursors, are combustion processes (including motor vehicle engines) and the evaporation of solvents, paints, and fuels. Automobiles are the single largest source of ozone precursors in the Bay Area.

The BAAQMD-recommended guidance for determining if a project supports the goals in the current clean air plan is to compare project-estimated emissions with BAAQMD thresholds of significance. If project emissions would not exceed the thresholds of significance after the application of all feasible mitigation measures, the project would be consistent with the goals

of the *2017 Bay Area Clean Air Plan*. Construction and operational impacts of the Project are discussed below, which are then used to evaluate consistency with the *2017 Bay Area Clean Air Plan*.

**Construction**

Construction activities are typically short term and result in emissions of ozone precursors and PM in the form of dust (fugitive dust) and exhaust (e.g., vehicle tailpipe) emissions. The Project includes excavation to install new storm drain pipeline and new/replacement air valves, and construction of the new PP. Pollutant emissions associated with the Project activities would be generated from the following general construction activities: (1) grading, excavation, and construction; (2) vehicle trips from workers traveling to and from the construction areas; (3) trips associated with delivery and hauling of construction supplies to, and debris from, the construction areas; (4) fuel combustion by on-site construction equipment; and (5) paving and architectural coatings (paints and other coatings used in interior and exterior finishing of buildings). These Project activities would temporarily create emissions of dust, fumes, equipment exhaust, and other air pollutants. Emissions of ozone precursors and exhaust PM are primarily a result of the combustion of fuel from on-road and off-road vehicles. However, ROGs are also emitted from activities that involve painting, other types of architectural coatings, or asphalt paving.

The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring simultaneously at the time. The construction durations include an approximate 45 weeks (10.5 months) for the mobilization, site preparation and tree removal, initial excavation and grading, and pumping plant construction phases; an approximate 4-week (1-month) trenching phase, including trenching for onsite suction and discharge pipelines and the offsite storm drain pipeline on Road 20; an approximate 2-week paving phase; an approximate 2-week architectural coating phase, and an approximate 2-week grading phase, which would result in a construction duration of between 13 months and 16 months depending on the extent different phases are completed concurrently. The air quality analysis is based on the shortest potential construction schedule of 13 months, evaluating the highest potential average daily construction emissions scenario.

Although construction emissions are considered short term and temporary, they have the potential to be a significant impact with respect to air quality, particularly when construction extends over a long period of time and/or when sensitive receptors are located close by. Particulate matter (i.e., $PM_{10}$ and $PM_{2.5}$) are among the pollutants of greatest localized concern with respect to construction activities. Particulate emissions from construction activities can lead to adverse health effects and nuisance concerns, such as reduced visibility and soiling of exposed surfaces. Particulate emissions can result from a variety of construction activities, including excavation, grading, vehicle travel on paved and unpaved surfaces, and vehicle and equipment exhaust. Construction emissions of PM can vary greatly depending on the level of activity, the specific operations taking place, the number and types of equipment operated, local soil conditions, weather conditions, and the amount of earth disturbance.

Emissions of ozone precursors ROG and $NO_X$ are primarily generated from construction equipment exhaust and mobile sources and vary as a function of the number of daily vehicle trips, and the types and number of heavy-duty, off-road equipment used, and the intensity

and frequency of their operation. Additionally, construction-related ROG emissions would also result from the application of asphalt (during paving) and architectural coatings; the amount of these emissions would vary depending on the amount of paving or coating that would occur each day.

The BAAQMD Guidelines include significance criteria for evaluating construction-phase emissions associated with projects. In accordance with BAAQMD Guidelines, a project would have a significant construction-related impact if it would cause a new increase in pollutant emissions of ROG exceeding 54 pounds per day (lbs/day), NOx exceeding 54 lbs/day, $PM_{10}$ exceeding 82 lbs/day, or $PM_{2.5}$ exceeding 54 lbs/day. BAAQMD does not have a threshold of significance for fugitive dust impacts but instead regards fugitive dust impacts to be mitigated if appropriate management practices are implemented. For construction-phase impacts, BAAQMD recommends implementation of construction mitigation measures to mitigate construction impacts.

Emissions from removal of the existing trees, foundation excavation, and construction of the PP were estimated using California Emissions Estimator Model (CalEEMod) version 2016.3.2, while construction emissions related to the installation of the new storm drain pipeline was estimated using Sacramento Air Quality Management District Roadway Construction Emissions Model (RCEM) version 9.0. CalEEMod estimates emissions from area sources based on land uses, while RCEM has been developed to estimate emissions specifically from linear construction projects (e.g., roadways, bridges, and pipelines). CalEEMod computes annual emissions for construction that are based on the project type, size, and acreage and provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily comprised of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. Likewise, RCEM computes total project emissions for both on-site and off-site construction activities, including emissions from construction equipment and traffic generated by commuting workers and soil/asphalt hauling.

The latest version of the CalEEMod model is based on the older version of the California Air Resources Board (CARB) EMissions FACtors (EMFAC) 2014 motor vehicle emission factor model, while RCEM uses emissions factors from the latest EMFAC model (EMFAC2017). Because CalEEMod has not been updated to include EMFAC2017, construction trip estimated for the construction of the Project was applied to EMFAC2017 motor vehicle emissions factors to estimate construction site trip emissions, which include worker travel, vendor trucks and haul trucks.[5]

Table 3.4.3-1 below shows a summary of the construction emissions as estimated using CalEEMod and RCEM, and provides daily emissions of criteria air pollutants, as averaged over the entire duration of construction, compared to the BAAQMD significance thresholds.

[5] See CARB's EMFAC2017 Web Database at https://www.arb.ca.gov/emfac/2017/

As shown in Table 3.4.3-1, emissions of all evaluated pollutants would be well below BAAQMD significance thresholds.

**Table 3.4.3-1 Unmitigated Average Daily Construction Emissions**

| | Construction Emissions (pounds/day) | | | |
|---|---|---|---|---|
| | ROG | $NO_X$ | Exhaust $PM_{10}$ | Exhaust $PM_{2.5}$ |
| Project Construction Emissions | 0.88 | 3.62 | 0.18 | 0.13 |
| BAAQMD Threshold | 54 | 54 | 82 | 54 |
| Exceed Threshold? | No | No | No | No |

SOURCE: Calculations by Panorama, CalEEMod and RCEM Modeling, Wildcat Pumping Plant Project Air Quality Technical Report (Panorama, 2021)

As indicated in Table 3.4.3-1, predicted construction-period emissions would not exceed the BAAQMD significance thresholds. Whether or not a project's emissions exceed the BAAQMD significance thresholds, the BAAQMD recommends that all projects implement the Basic Construction Mitigation Measures that primarily address dust control. The BAAQMD considers implementation of the BAAQMD-recommended mitigation measures for fugitive dust sufficient to ensure that construction-related fugitive dust is reduced to a less-than-significant level.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 1.3.E, Dust Control and Monitoring Plan, Section 3.3.B, Dust Control, Section 3.3.C, Dust Monitoring During Demolition and Construction, Section 3.3.D, Dust Control System Compliance, Section 3.5.A, Air Quality and Emissions Control, and Section 3.5.B, Architectural Coatings, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, which requires implementation of BAAQMD-recommended measures addressing dust and emissions controls (e.g., covering all haul trucks entering/leaving the site, use of line power instead of diesel generators at all construction sites where line power is available, and minimizing idling times either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes), and requires EBMUD to use architectural coatings compliant with appropriate Volatile Organic Compounds (VOC) limits as established in the BAAQMD regulations to reduce ROG emissions during construction and maintenance.

Because the estimated construction emissions from the Project would be less than the recommended BAAQMD significance thresholds for construction and with implementation of the measures specified in EBMUD Standard Construction Specifications Section 01 35 44, Environmental Requirements, including Section 1.3.E, Dust Control and Monitoring Plan, Section 3.3.B, Dust Control, Section 3.3.C, Dust Monitoring During Demolition and Construction, Section 3.3.D, Dust Control System Compliance, Section 3.5.A, Air Quality and Emissions Control, and Section 3.5.B, Architectural Coatings, which include specified dust control BMPs to minimize construction-related emissions, the Project would be

consistent with all applicable control strategies in the *2017 Bay Area Clean Air Plan*. Because Project construction would be consistent with all three criteria identified by the BAAQMD to evaluate consistency with the *2017 Bay Area Clean Air Plan*, the Project would lead to a less than significant impact with respect to conflicting with or obstructing implementation of the *2017 Bay Area Clean Air Plan*. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**

Once operational, the Project would not include any new sources of emissions. The new PP and storm drain pipeline and air valves would operate in the same way as the existing facilities. The PP would be powered by electricity and operated and monitored remotely. EBMUD worker vehicle trips for operation and maintenance would remain the same or less than the existing portable PP, with approximately two trips per month. For these reasons, the Project would not hinder the *2017 Bay Area Clean Air Plan*'s ability to meet its primary goals to reduce emissions and harmful pollutants, safeguard public health, and reduce GHG emissions. Because the Project would not generate operational emissions that would hinder regional air quality planning in the area, the impact would be less than significant with respect to implementation of the applicable air quality plan.

**b. Less than Significant Impact.**

Federal and California state ambient air quality standards have been set to protect public health and the climate. "Attainment" status for a pollutant means that BAAQMD meets the standards set by the United States Environmental Protection Agency (U.S. EPA) (federal) or EPA (state). Generally, California state standards are more stringent than federal standards. Currently, as measured under both California state and federal standards, the Bay Area Air Basin has non-attainment status for PM and ozone, though standards are exceeded only periodically.

Regarding the assessment of cumulative impacts, the BAAQMD Guidelines consider a project's contribution to cumulative impacts on regional air quality to be significant if the project's individual impact would be significant (i.e., exceeds the BAAQMD's quantitative thresholds). For a project that would not result in a significant impact individually, the project's contribution to any cumulative impact would be considered less than significant if the project is consistent with the local general plan and the local general plan is consistent with the applicable regional air quality plan. In this case, the applicable regional air quality plan is the *2017 Bay Area Clean Air Plan*.

**Construction**

As indicated in Table 3.3-1, predicted unmitigated construction-period emissions of ROG, $NO_X$, $PM_{10}$ exhaust, and $PM_{2.5}$ exhaust would not exceed the BAAQMD significance thresholds. As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects have been incorporated into the Project

that would further reduce construction-related emissions from Table 3.3-1, including EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, Section 3.5.A, Air Quality and Emissions Control, which requires the Project Contractor to use electrical power where available, comply with regulatory requirements for compression-ignition engines, register portable engines and equipment with CARB or otherwise permitted by BAAQMD, limit idling times to a maximum of 5 minutes, equip construction equipment, diesel trucks and generators with the Best Available Control Technology for emission reduction of $NO_X$ and PM, and perform regular low-emission tune-ups on call construction equipment. Additionally, EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, Section 3.5.B, Architectural Coatings requires the Project Contractor to use architectural coatings compliant with appropriate VOC limits as established in the BAAQMD regulations to reduce volatile organic compound (i.e., ROG) emissions during construction and maintenance.

Because the Project is consistent with the *2017 Bay Area Clean Air Plan* as discussed under a), because estimated construction emissions from the Project would be less than the recommended BAAQMD significance thresholds for construction, and with implementation of Specification 01 35 44, Environmental Requirements, Section 3.5.A, Air Quality and Emissions Control and Section 3.5.B, Architectural Coatings, which would further reduce construction emissions, the Project would not result in a cumulatively considerable net increase of any criteria pollutant and impacts from construction would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**

As stated above in a), the Project would not increase emissions of criteria air pollutants over existing conditions and would therefore not contribute to a cumulative impact. The Project would also not be a source of TACs or $PM_{2.5}$ emissions because there are no emissions sources (i.e., diesel-fueled equipment), therefore, new PP operational impacts related to air quality standards from the proposed Project would have no impact.

**c. Less than Significant Impact.**

**Construction**

BAAQMD defines sensitive receptors as children, adults, and seniors occupying or residing in residential dwellings, schools, colleges and universities, daycares, hospitals, and senior-care facilities. Although it was concluded, under a) and b) above, that construction exhaust air pollutant emissions would not contribute substantially to existing or projected air quality violations, construction exhaust emissions may still pose health risks for sensitive receptors, such as surrounding residents. The primary community risk impact issue associated with construction emissions are cancer risk associated with diesel particulate matter (DPM), which is identified by CARB as a TAC due to the potential to cause cancer, and non-cancer health impacts associated with exposure to fugitive sources of $PM_{2.5}$. Construction equipment and associated heavy-duty truck traffic generates DPM, while construction activities generate fugitive $PM_{2.5}$. A health risk assessment was conducted per

the State of California Office of Environmental Health Hazard Assessment (OEHHA) and CARB recommended methods for conducting health risk assessments. The health risk assessment evaluates how TAC emissions are released from a project, how they disperse throughout the community, and how they may affect human health.

BAAQMD thresholds for cancer risk, $PM_{2.5}$ concentration, and Hazard Index (HI) were applied to the health risk assessment to evaluate potential cancer risk and potential non-cancer health effects to nearby sensitive receptors from Project-related construction emissions of DPM and $PM_{2.5}$. Potential non-cancer health hazards from TAC exposure are expressed in terms of HI, which is the ratio of the TAC concentration to a reference exposure level. The HI value represents the maximum concentration at which no adverse health effects to the respiratory system are anticipated to occur.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 3.5.A, Air Quality and Emissions Control, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, which requires that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology (BACT) for emission reductions of NOx and PM. Implementation of Specification 01 35 44, Environmental Requirements, Section 3.5.A, Air Quality and Emissions Control, in this analysis assumes the use of engines that meet the Tier 4 Final Standards, U.S. EPA's most stringent standards for off-highway diesel engines, as the BACT for all construction equipment.

The maximum modeled annual $PM_{10}$ exhaust emissions (assumed to be DPM) and fugitive $PM_{2.5}$ dust emissions were estimated at the Project site and new storm drain alignment using the CalEEMod model for off-road vehicles and the EMFAC2017 model for on-road vehicles reflecting implementation of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, Section 3.5.A, Air Quality and Emissions Control. The American Meteorological Society/EPA Regulatory Model (AERMOD) dispersion model was used to predict DPM and $PM_{2.5}$ concentrations at the nearest sensitive receptors (i.e., residents, school children, elderly) to the Project construction areas. Using the maximum annual modeled DPM concentrations, the maximum increased cancer risks were calculated using BAAQMD recommended methods and exposure parameters. HI and maximum annual $PM_{2.5}$ concentrations were also calculated and identified.

Results of the health risk assessment for construction activities indicated that the nearest sensitive receptors for the new PP and new storm drain pipeline are located on the second floor of a multi-family residence adjacent to the southeastern boundary of the PP site. Table 3.4.3-2 summarizes the cancer risks, $PM_{2.5}$ concentrations, and HI for project-related construction activities affecting the nearest sensitive receptors accounting for the emission reductions that would result from implementation of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, Section 3.5.A, Air Quality and Emissions Control.

**Table 3.4.3-2 Construction Risk Impacts at Nearest Sensitive Receptor – New PP and New Pipelines**

| Source | Cancer Risk (per million) | Annual $PM_{2.5}$ ($\mu g/m^3$) | Hazard Index (HI) |
|---|---|---|---|
| New PP and New Pipeline Construction | 9.51 (infant) | 0.06 | 0.01 |
| BAAQMD Single-Source Threshold | >10.0 | >0.3 | >1.0 |
| Exceed Threshold? | No | No | No |

As indicated in Table 3.4.3-2, with implementation of requirements specified in Standard Construction Specification 01 35 44, Environmental Requirements, Section 3.5.A, Air Quality and Emissions Control, which requires construction equipment, diesel trucks, and generators be equipped with BACT for emission reductions, the Project would not exceed the BAAQMD single-source threshold of greater than 0.3 $\mu g/m^3$ for annual $PM_{2.5}$ concentration, 10.0 per million for cancer risk, and 1.0 for HI from construction activities, therefore, the impacts to sensitive receptors related to construction would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**

Operation of the new PP would not be a source of significant TAC pollutant emissions. No fuel combustion equipment (i.e., diesel generators) are planned at the site under normal operations. Therefore, emissions associated with the operation of the new PP would primarily include those from vehicles that occasionally travel to and from the site. The estimated trips to and from the site (i.e., two trips per month, weekdays only) would be less than those generated by a single residence. Operation of the Project would not expose sensitive receptors to substantial pollutant concentrations, and the impact would be less than significant.

**d. Less than Significant Impact.**

**Construction**

Activities requiring construction equipment and trucks that emit diesel- and/or gasoline-powered engine exhaust odors may be a potential source of objectionable odors. However, the restriction of construction activities to daylight work hours and the implementation of the EBMUD standard practices and procedures below would reduce this potential impact to less than significant.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 1.3.I, Tune-up Logs, and Section 3.5.A, Air Quality and Emissions Control, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements. Section 1.3.I, Tune-up Logs, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, requires the Contractor provide on a

quarterly basis for review records of tune-up logs that show construction equipment, particularly haul and delivery trucks, in use at the Project sites have undergone required maintenance. Section 3.5.A, Air Quality and Emissions Control, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, includes the following provisions for air quality and emissions control:

- The Contractor shall ensure that line power is used instead of diesel generators at all construction sites where line power is available.
- The Contractor shall ensure that for operation of any stationary, compression-ignition engines as part of construction, comply with Section 93115, Title 17, California Code of Regulations, Airborne Toxic Control Measures (ATCM) for Stationary Compression Ignition Engines, which specifies fuel and fuel additive requirements as well as emission standards.
- Fixed temporary sources of air emissions (such as portable pumps, compressors, generators, etc.) shall be electrically powered unless the Contractor submits documentation and receives approval from the Engineer that the use of such equipment is not practical, feasible, or available. All portable engines and equipment units used as part of construction shall be properly registered with CARB or otherwise permitted by the appropriate local air district, as required.
- Contractor shall implement standard air emission controls such as:
    - Minimize the use of diesel generators where possible.
    - Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes as required by the California ATCM, Title 13, Section 2485 of California Code of Regulations. Clear signage shall be provided for construction workers at all access points.
    - Follow applicable regulations for fuel, fuel additives, and emission standards for stationary, diesel-fueled engines.
    - Locate generators at least 100 feet away from adjacent homes.
    - Perform regular low-emission tune-ups on all construction equipment, particularly haul trucks and earthwork equipment.

With implementation of Section 1.3I, Tune-up Logs, and Section 3.5.A, Air Quality and Emissions Control, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, construction equipment used at the Project site would be maintained regularly for efficient operation and specified air emissions control provisions would be included to minimize construction diesel exhaust emissions that could generate objectionable odors, the Project impact related to creation of objectionable odors affecting a substantial number of people would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

### Operation

The new PP pump units would operate within the enclosed new concrete building and be powered by electricity. As such, the new PP operations would not generate objectionable odors affecting a substantial number of people.

## REFERENCES

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### 3.4.4 Biological Resources

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Have a substantial adverse impact, 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 Dept. of Fish & Game or U.S. Fish & Wildlife Service? | ☐ | ☐ | ☒ | ☐ |
| b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Dept. of Fish & Game or U.S. Fish & Wildlife Service? | ☐ | ☐ | ☐ | ☒ |
| c) Have a substantial adverse impact 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? | ☐ | ☐ | ☐ | ☒ |

## DISCUSSION

The biological resources impact analysis is based upon the report titled Wildcat Pumping Plant Project Biological Resources Technical Report (Panorama, 2021). The potential for special-status species to occur at the Project site and new storm drain pipeline alignment was evaluated by determining which special-status species occur in the vicinity of the Project through a literature and database search. Special-status species included those listed as endangered, threatened, rare, or proposed for listing by U.S. Fish and Wildlife Service (USFWS) or California Department of Fish and Wildlife (CDFW). California Native Plant Society (CNPS) plant lists and locally rare plant lists were also reviewed.

The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the Project:

- California Natural Diversity Database (CNDDB) records
- USFWS Information for Planning and Consultation (IPaC) Trust Resource Report
- CNPS Electronic Inventory records
- CNPS list of Rare, Unusual and Significant Plants of Alameda and Contra Costa Counties

CNDDB and CNPS electronic inventory databases were queried for one quadrangle (Richmond quad). The CNPS list of Rare, Unusual and Significant Plants of Alameda and Contra Costa counties was queried for the "FIN – Flatlands (North)" region. The USFWS IPaC database was queried for the Project site and the new storm drain pipeline alignment, in accordance with the database query procedure recommended by USFWS.

The new and replacement air valves would be installed entirely within existing paved roadways or developed site that experience regular traffic related noise and are unlikely to impact sensitive species, therefore the air valves will not be discussed in the analysis below.

**a. Less than Significant Impact.**

**Special Status Species (No Impact)**

Because the Project site is located in an urban setting and is mostly paved with limited ornamental vegetation, the Project site does not provide suitable habitat for any special-status species with known occurrences in the region, as defined by the Project quadrangle according to CNDDB and CNPS electronic inventory databases, the FIN-Flatlands (North) region for the CNPS list of Rare, Unusual and Significant Plants of Alameda and Contra Costa counties, and the extent of the internal species occurrence ranges managed by USFWS for the IPaC database[6]. Therefore, based on field observations and a desktop-level review of species habitat requirements and CDFW, CNPS, and USFWS species occurrence databases, no special-status species have the potential to occur at the Project site and along the new storm drain pipeline alignment. As such, the Project has no potential to impact special-status species.

**Special-Status Nesting Birds (Less than Significant Impact)**

**Construction**
The Project site contains manmade structures and landscaped vegetation, including several mature ornamental trees, that may provide nesting habitat for resident and migratory birds. Active bird nests (i.e., nests that contain eggs or young) are protected under the Migratory Bird Treaty Act and the California Fish and Game Code (USFWS, 2004; CDFW, 2007).

[6] To query the IPaC database, USFWS directs the user to input the boundaries of the area where specific project activities will occur. The IPaC system then automatically generates a list of special-status species that have the potential to occur within that project impact area, based on USFWS's internally managed data on species ranges. Therefore, for an IPaC query, USFWS internally determines the extent of a project region and the species with potential to occur in a project impact area. The species ranges and extent of a project region are not publicly available.

Raptors are not expected to nest near the Project site due to the lack of foraging and nesting habitat, but the ornamental trees on site could support nesting by some common passerine bird species, such as Anna's hummingbird (*Calypte anna*) and northern mockingbird (*Mimus polyglottos*). Implementation of the Project would result in removal of vegetation within the Project site, including shrubs and approximately 13 mature trees. The bird nesting season generally occurs between February 1 and August 31 each year, which represents the time period when trees and vegetation may have the potential to contain an active bird nest. If vegetation removal activities occur between February 1 and August 31, these activities have the potential to adversely impact nesting birds if an active bird nest is present within the vegetation.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 3.9 Protection of Birds Protected under the Migratory Treaty Act and Roosting Bats of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, which requires protection of migratory birds and their nests and includes the following provisions:

- It is unlawful to pursue, hunt, take, capture, or kill any migratory bird without a permit issued by the U.S. Department of the Interior.
- If construction commences between February 1 and August 31, during the nesting season, EBMUD would conduct a preconstruction survey for nesting birds within 7 days prior to construction to ensure that no nest would be disturbed during construction.
- If active nests of migratory bird species (listed in the MBTA) are found within the project site, or in areas subject to disturbance from construction activities, an avoidance buffer to avoid nest disturbance shall be constructed. The buffer size would be determined by EBMUD in consultation with CDFW and is based on the nest location, topography, cover and species' tolerance to disturbance.
- If an avoidance buffer is not achievable, a qualified biologist provided by EBMUD would monitor the nest(s) to document that no take of the nest (nest failure) has occurred. Active nests shall not be taken or destroyed under the MBTA and, for raptors, under the CDFW Code. If it is determined that construction activity is resulting in nest disturbance, work should cease immediately, and the Contractor shall notify the Engineer who would consult with the qualified biologist and appropriate regulatory agencies.

With implementation of Section 3.9, Protection of Birds Protected under the Migratory Treaty Act and Roosting Bats, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, which includes provisions for preconstruction nesting bird surveys, monitoring during construction, and delineation of avoidance buffer zones, impacts to migratory birds, including destruction of potential nesting habitat, eggs or occupied nests, direct mortalities of young birds, and the abandonment of nests with eggs or young birds prior to fledging, would be less than significant. The EBMUD Practices and Procedures

Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**

No habitat for special-status species is present at the Project site and along the new storm drain pipeline alignment. Operation of the Project would not involve any removal of vegetation or structures, or any other activities that could potentially affect special-status species or nesting birds. Therefore, Operation of the Project has no potential to impact special-status species or nesting birds.

**b. No Impact.**

No waters or riparian habitats occur on or directly adjacent to the Project site and the new storm drain pipeline alignment. Therefore, the Project would not result in any impacts to any waters or riparian habitat identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.

**c. No Impact.**

No state or federally protected wetlands occur within Project site and the new storm drain pipeline alignment. Therefore, the Project would not result in any impacts 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. No Impact.**

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, or individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover).

The Project site and the new storm drain pipeline alignment do not function as important regional wildlife corridors or nursery sites because the sites and adjacent areas have been paved and developed. The Project site is surrounded by residential, institutional, or commercial development and paved streets on all four sides. The new storm drain pipeline alignment would be completed in paved roadways. Therefore, the Project would not result in any impact to 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. Less than Significant Impact.**

Although EBMUD is not subject to building and land use zoning ordinances (such as tree ordinances) for projects involving the transmission of water (Government Code Section 53091), EBMUD strives to consider and work with host jurisdictions and neighboring communities during project planning and to conform to local environmental protection policies, where feasible and not contrary to its public purpose and responsibilities.

**Construction**

Construction of the Project would involve the removal of approximately 13 mature ornamental trees on the Project site. The San Pablo General Plan 2030 and City of San Pablo Master Landscape Plan contain policies and guidelines that apply to street trees; however, none of the trees within the Project site are considered street trees as they are all located over 60 feet away from the nearest public right-of-way of El Portal Drive. Therefore, the removal of trees within the Project site would not conflict with any policies or guidelines listed in the San Pablo General Plan 2030 or the City of San Pablo Master Landscape Plan.

Chapter 17.48 of the San Pablo Municipal Code contains tree evaluation and replanting requirements that apply to development projects that contain trees within the project footprint. However, Section 17.48.020 of the San Pablo Municipal Code specifies conditions under which a project may be exempt from all the requirements of Chapter 17.48, and includes an exemption for any project with a landscaped area less than 1,000 square feet. (Ordinance 02-004 Section 1 [part], 2002). The Project site contains less than 1,000 square feet of landscaped area (Panorama Environmental, Inc., MWA Architects, and Dillingham Associates, 2021).Therefore, the Project is exempt from the tree evaluation and replanting requirements listed under Chapter 17.48, and removal of the trees within the Project site during construction would not conflict with the San Pablo Municipal Code. Construction of the Project would not conflict with the San Pablo General Plan 2030, City of San Pablo Master Landscape Plan, San Pablo Municipal Code, or any other local policy or ordinance protecting biological resources.

**Operation**

No vegetation removal or any other activity that could potentially conflict with a policy or ordinance protecting biological resources would occur during operation of the Project.

**f. No Impact.**

None of the Project sites are located within any adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan. Therefore, construction activities and operation of the PP would not conflict with the provisions of any adopted plan.

## REFERENCES

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### 3.4.5 Cultural Resources

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Cause a substantial adverse change in the significance of a 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 formal cemeteries? | ☐ | ☒ | ☐ | ☐ |

**DISCUSSION**

The cultural resources analysis is based upon the Wildcat Pumping Plant Project Cultural Resources Assessment Report (Panorama, 2021) that includes a review of archeological and built environment cultural resources for the Project site and the new storm drain pipeline alignment.

Once operational, the Project would not include any ground disturbing activities that would result in the potential inadvertent discovery of archaeological resources or human remains, or the destruction of a unique paleontological resource or site or unique geologic feature. As there would be no ground disturbing activities during the operation of the new PP, new storm drain pipeline, and air valves, the following discussion focuses on construction-related impacts.

**a. No Impact.**

CEQA Guidelines Section 15064.5 requires the lead agency (EBMUD) to consider the effects of a project on historical resources. A historical resource is defined as any building, structure, site, or object listed in or determined to be eligible for listing in the California Register of Historical Resources (California Register) or determined by a lead agency to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California. This section discusses architectural resources; archaeological resources that are potential historical resources are discussed in Section b) below.

The Project site is not listed on the Federal Register of Historic Places or the California Register of Historical Resources. Historic-age structures in and around the Project site are limited to the Road 20 RCS (constructed in 1970) on the Project site and adjacent apartment complex, the Kona Apartments (constructed in 1972), located at 2645 Church Lane. Both structures were determined to not meet the criteria as historical resources or be historically significant. Because neither structure was determined to be eligible for listing in the Federal Register of Historic Places or the California Register of Historical Resources, the Project has no potential to cause a substantial adverse change in the significance of a historical resources. No impact would occur.

**b. Less than Significant Impact with Mitigation.**

This section discusses archaeological resources, both as historical resources according to Section 15064.5 of the CEQA Guidelines as well as unique archaeological resources as defined in Section 21083.2(g) of the CEQA Guidelines. A significant impact would occur if the Project would cause a substantial adverse change to an archaeological resource through physical demolition, destruction, relocation, or alteration of the resource.

The Project site, new storm drain pipeline alignment, and air valve sites are all located on developed land that has been subject to prior excavation and disturbance. All work at the Project site, new storm drain pipeline alignment, and air valves are located in areas that have been previously disturbed. No archaeological, paleontological resources or human remains have previously been encountered at any of these sites.

EBMUD maintains an Archaeological Resources Geographic Information System (GIS) database that is updated annually with the results of a records search of the Northwest Information Center (NWIC) of the California Historical Resources Information System. A GIS survey of the Project site and the new storm drain pipeline alignment found no recorded occurrences of archaeological resources within the immediate vicinity (half mile). Furthermore, a separate records search that was conducted on May 24, 2021 at the NWIC also indicated the Project site does not contain any previously recorded Native American sites or historic-period archaeological sites. The records search included a review of cultural resources studies and recorded cultural resources within a 0.25-mile radius of the Project site.

A desktop-level review was conducted to establish a baseline understanding of the cultural resource setting of the Project site and proposed storm drain pipeline alignment. Specific sources that were reviewed include:

- National Register of Historic Places
- California Register of Historical Resources
- California Historical Landmarks and Points of Interest publications and updates
- Office of Historic Preservation Built Environment Resource Directory
- California Historical Landmarks
- California Points of Historical Interest
- City of San Pablo's Buildings of Historic Significance in *San Pablo General Plan 2030*

Online sources including historic newspapers and trade journals, historic and modern aerial photography, U.S. Geographical Survey (USGS) maps, architect directories, and other relevant sources of information were also reviewed to obtain additional context for the Project site. The Project site is located adjacent to Wildcat Creek, which is known as a focus of Ohlone occupation in the area, and several known villages are within a few miles of the Project site. The sediments underlying the Project site are also mapped as Conejo clay loam, dated nearby to the Late Holocene and known to overlay archaeological deposits. Given the known prehistoric use in the watershed and upstream areas and the underlying sediment, the

Project site was determined to have moderate potential to contain archaeological resources. Therefore, ground-disturbing activities proposed as part of the Project has the potential to impact these buried archaeological resources.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 3.10, Protection of Cultural and Paleontological Resources, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements. Section 3.10, Protection of Cultural and Paleontological Resources, which includes appropriate cultural resources management practices and complies with statutory requirements, outlines the following procedures:

- Preconstruction cultural and paleontological resources training is required for all construction personnel.
- In the event that a cultural or paleontological resource is identified during preconstruction activities or during excavation for construction activities, all work within 100 feet of the resource shall be halted until a qualified archaeologist can review, identify, and evaluate the resource for its significance. Should the archaeologist determine that an archaeological resource has the potential to be a tribal cultural resource, a Native American monitor shall be retained by EBMUD to monitor work in the area where the tribal cultural resource was discovered.

With implementation of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, including Section 3.10, Protection of Cultural and Paleontological Resources, which requires implementation of archaeological resources procedures that address the inadvertent discovery of cultural resources and follows statutory law, the Project's impact related to archeological resources could still pose a significant impact. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

In addition to implementation of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, including Section 3.10, Protection of Cultural and Paleontological Resources, EBMUD would implement the following to mitigate potential adverse impacts to the cultural site.

**Mitigation Measure CR-1: Periodic Archaeological Inspections and Construction Monitoring.** During ground-disturbing phases of Project construction (initial excavation and grading, suction and discharge pipeline construction, on-site drainage construction, and Road 20 storm drain pipeline installation), a Native American monitor and a qualified archaeologist shall visit the site two times per week to inspect unexcavated sediments and soils (i.e., intact soils along trench walls and excavations) for any sign of potential archaeological deposits. If the Native American monitor and archaeologist have observed excavation to final depth in sufficient areas to adequately characterize the Project site and the underlying sediments appear disturbed or other evidence to suggest

that archaeological deposits are highly unlikely, the Native American monitor and qualified archaeologist may cease bi-weekly inspections, in consultation with EBMUD.

If during bi-weekly inspections the Native American monitor and archaeologist identify sensitive intact sediments that are likely to contain archaeological deposits, ground-disturbing activities shall be halted, and the qualified archaeologist shall develop an appropriate Archaeological Monitoring Plan in consultation with the Native American monitor and EBMUD. Depending on the type and condition of the sediments, the Archaeological Monitoring Plan may include, but not be limited to, increased frequency of periodic archaeological inspections, full-time archaeological construction monitoring, or presence/absence testing in areas of heightened archaeological sensitivity. The Archaeological Monitoring Plan shall detail the methods, schedule, and thresholds for returning to bi-weekly archaeological inspections.

With implementation of Mitigation Measure CR-1, which require periodic archeological inspections and construction monitoring and implementation of archaeological resources procedures that address the inadvertent discovery of cultural resources and follows statutory law, the Project's impact related to cultural resources is less than significant.

**c. Less than Significant Impact with Mitigation.**

Based on a review of EBMUD's Archaeological Resources GIS database and the NWIC records search, and because all of excavation would occur within developed land that has been subject to prior excavation and disturbance, there is no indication that any parts of the Project site, new storm drain pipeline alignment, and air valve sites have been used for human burial purposes in the recent or distant past.

EBMUD contacted the Native American Heritage Commission (NAHC) on April 6, 2021 for a search of the Sacred Lands files for any cultural resources that may be within or adjacent to the Project. EBMUD also requested a list of Native American individuals/organizations that may have knowledge of cultural resources within the Project site. The NAHC responded on April 16, 2021, stating that the results of the Sacred Lands file (SLF) search were positive for the presence of Native American cultural resources, and provided a list of seven tribes that are affiliated within the Project site. EBMUD subsequently emailed and sent letters on April 21, 2021 regarding the Project to all of the tribes on the NAHC list. One response from the Indian Canyon Band of Costanoan Ohlone People (Tribe) was received via email on April 21, 2021 indicating that the Project area overlaps or is near the management boundary of a recorded and potentially eligible cultural site. No information regarding the resource or location was provided by the Tribe or any other tribal representative contacted for the Project. EBMUD conducted an informational meeting with the Tribe on May 24, 2021. The Tribe recommended a Native American monitor and archaeologist be present on the Project site during construction to minimize potential effects of the cultural site. The presence of a cultural site on the SLF suggests there may be an increase in potential to encounter human remains at the Project site.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 3.9, Protection of Cultural and Paleontological Resources, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements. Section 3.9, Protection of Cultural and Paleontological Resources, which includes appropriate cultural resources management practices and complies with statutory requirements, outlines the following procedures:

- Preconstruction cultural resources training is required for all construction personnel.
- Discovery of human remains requires that all construction activities shall immediately cease at the location of discovery and within 100 feet of the discovery. EBMUD shall contact the County Coroner to determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner shall contact the NAHC. The NAHC shall then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn would make recommendations to EBMUD for the appropriate means of treating the human remains and any associated funerary objects.

With implementation of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, including Section 3.9, Protection of Cultural and Paleontological Resources, which requires implementation of archaeological resources procedures that address the inadvertent discovery of cultural resources and follows statutory law, the Project's impact related to cultural resources could still pose a significant impact. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

In addition to implementation of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, including Section 3.9, Protection of Cultural and Paleontological Resources, EBMUD would implement Mitigation Measure CR-1: Periodic Archaeological Inspections and Construction Monitoring, requiring that an archaeologist perform bi-weekly inspections of the Project site during all ground-disturbing construction phases.

With implementation of Mitigation Measure CR-1, which require periodic archeological inspections and construction monitoring and implementation of archaeological resources procedures that address the inadvertent discovery of cultural resources and follows statutory law, the Project's impact related to cultural resources is less than significant.

## REFERENCES

EBMUD. (2018, August 31). Standard Construction Specification. *Section 01 35 44, Environmental Requirements*.

Panorama Environmental, Inc. and Paleo West. (2021, August). *East Bay Municipal Utility District Wildcat Pumping Plant Project Cultural Resources Assessment Report*.

## 3.4.6 Energy

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

**DISCUSSION**

As discussed in Section 3.4.3, Air Quality, of this MND, the CalEEMod version 2016.3.2 was used to quantify construction emissions (Panorama, 2021). The CalEEMod quantifies direct emissions from construction equipment as well as vehicle trips associated with worker commute and material delivery and hauling. Emissions from construction equipment were modeled using construction phase durations, equipment mix and activity, and vehicle trips associated with worker commute, material delivery, and haul trips.

**a. Less than Significant Impact**.

**Construction**
Construction of the Project would require the use of machinery and vehicles that would be used for excavation, grading, PP construction, open trench pipeline construction and would require the use of energy, including gasoline, diesel, and motor oil. During these activities, using emissions estimated by CalEEMod as an indicator of fuel consumption, fuel for construction worker commute trips and material hauling trips to and from the site would be minor in comparison to the fuel used by construction equipment. Construction would also indirectly use energy for production of construction materials.

While the precise amount of construction energy consumption is uncertain, use of these fuels would be consistent with typical construction and manufacturing practices and would not be wasteful or unnecessary because doing so would not be economically sustainable for contractors. Construction vehicles and equipment would comply with federal standards for vehicle fuel efficiency because all vehicles and machinery that are sold in the United States must meet those standards. Construction activities have been designed to minimize energy use as much as possible; EBMUD could store some excavated soil on site and reuse the soils as backfill during grading of the Project site to the extent feasible, so as to minimize fuel consumption associated with haul trucks for soil disposal.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 3.5.A, Air Quality and Emissions Control, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements. Section 3.5.A, Air

Quality and Emissions Control, of Standard Construction Specification 01 35 44 requires a variety of controls that would reduce the inefficient use of fuels, including limiting idling, keeping engines properly tuned, maintaining appropriate tire pressure, requiring the use of alternative-fueled construction equipment, and recycling or reusing construction waste or demolition materials to the extent feasible.

With implementation of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, Section 3.5.A, Air Quality and Emissions Control, which includes best management practices (BMPs) to ensure the efficient use of construction-related fuels, the Project construction impacts related to energy use and impacts on energy resources would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**
The operation of the new PP would result in a net increase in electricity use. However, this increase would be offset by a reduction in diesel energy use because the older diesel pumps and motors from the Road 20 Portable PP on site would be replaced with newer and more efficient pumps and motors of the Wildcat PP. The number of trips by maintenance workers would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources.

**b. No Impact**.

The Project would comply with federal standards for vehicle fuel efficiency because all vehicles and machinery that are sold within the United States are required to meet those standards. EBMUD has long been committed to renewable energy generation and wise energy use, and generates energy through hydropower, solar power, and biogas production at its wastewater treatment plants. However, the Project would neither affect the generation nor use of renewable energy. The Project would comply with other applicable energy efficiency policies or standards including EBMUD standard practices and procedures that require a variety of controls to reduce the inefficient use of fuels. Therefore, there would be no impact associated with conflicts with energy plans and policies related to renewable energy or energy efficiency.

## REFERENCES

EBMUD. (2018, August 31). Standard Construction Specification. *Section 01 35 44, Environmental Requirements*.

Panorama Environmental, Inc. and Illingworth & Rodkin, Inc. (2021). *East Bay Municipal Utility District Wildcat Pumping Plant Project Air Quality Technical Report.*

## 3.4.7 Geology and Soils

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

## DISCUSSION

This section describes the physical and regulatory setting for geologic, soil, seismic, and paleontological resources and identifies and evaluates potential impacts that could result from construction and operation of the Project.

Information for the assessment of geology, soils, and seismicity is based on a review of literature research (geologic, seismic, and soils reports and maps), information from geologic and seismic databases, and the San Pablo General Plan. This information was used to identify the potential impacts from Project construction and operation on workers, the public, or the environment. The Project would be regulated by applicable federal, state, and local laws and regulations which is

reflected in the analysis of geologic, soils, seismic, and paleontological impacts. The analysis of geologic, soils, seismic, and paleontological impacts in this section rely on EBMUD incorporating into its facility designs the engineering recommendations provided by a geotechnical investigation.

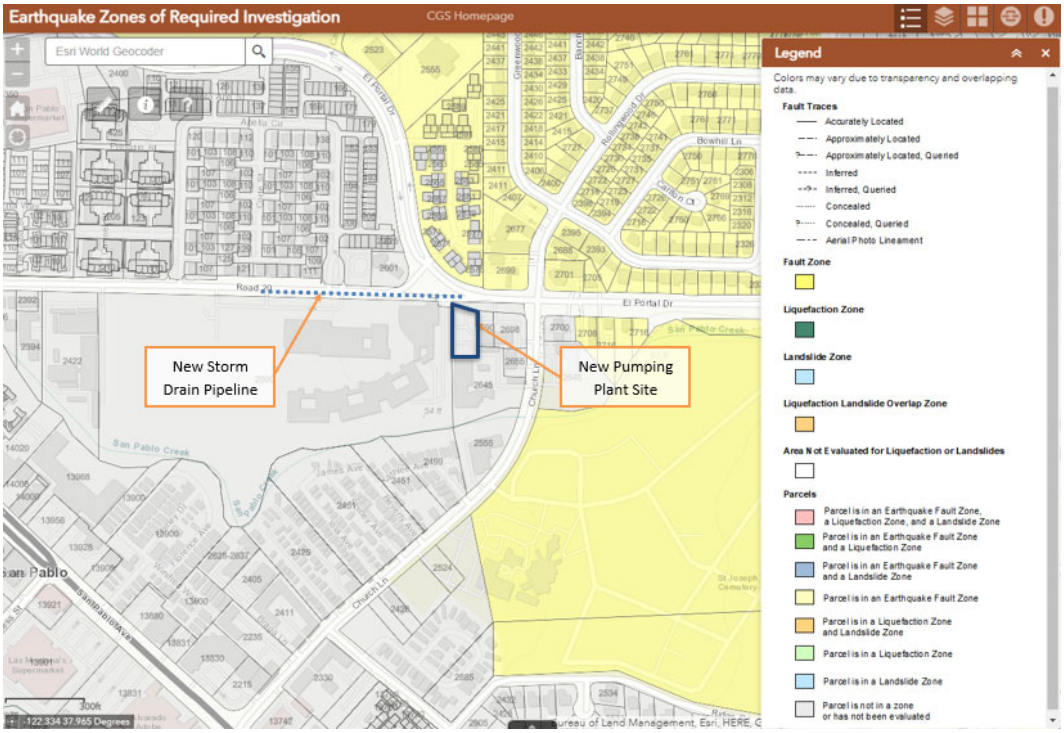
The new and replacement air valves would be installed entirely within existing paved roadways or developed sites that have been previously disturbed. Furthermore, installation of air valves is a small-scale construction activity that is part of EBMUD's routine maintenance; therefore, the air valves will not be discussed in the analysis below.

**a. (i. through iv.) Less than Significant Impact**.

Seismic-related ground shaking, and the hazardous conditions created by it (e.g., fault rupture, liquefaction, lateral spreading, and landslides) can present a serious risk to people and structures. The Hayward Fault Zone extends northwest approximately 55 miles from San Jose to Point Pinole and is a right-lateral, strike-slip fault designated as an Alquist-Priolo Earthquake Fault Zone. The fault is active, producing large historic earthquakes, fault creep, and abundant geomorphic evidence of fault rupture. The Hayward Fault Zone has a 14.11 percent probability of generating an earthquake with a magnitude equal to or greater than 6.7 Mw[7] over the next 30 years (WGCEP, 2015) and very strong to violent ground shaking is expected. Ground shaking of this magnitude is known to trigger secondary hazardous conditions (e.g., fault rupture, liquefaction, lateral spreading, and landslides), and could result in potentially significant impacts on the Project site.

**New PP Construction and Operation**
As shown in Figure 3.4.7-1, the Project site is not located within earthquake fault, landslide, or liquefaction zones. However, ground shaking is an unavoidable hazard for the new PP because it is located approximately 1,000 feet from the active Hayward Fault Zone and is in a seismically active region.

[7] The moment magnitude (Mw) of an earthquake is the measure of the total energy expended during an earthquake; it is used here in place of the local magnitude (ML) (i.e., the Richter magnitude scale), as local magnitude is an inaccurate measure of large earthquakes (USGS, 2018).




**New PP Site and New Storm Drain Pipeline**
**Figure 3.4.7-1**

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including EBMUD's Pumping Plant Design Guide, which details minimum requirements that apply to the design and construction of new PPs, and EBMUD Engineering Standard Practice 550.1, Seismic Design Requirements, which includes requirements for structures to withstand seismic hazards. EBMUD's Pumping Plant Design Guide requires the completion of a geotechnical investigation during design and incorporation of geotechnical design recommendations in Project plans and specifications. EBMUD Engineering Standard Practice 550.1, Seismic Design Requirements, dictate basic requirements for structures and design standards for structures to withstand seismic hazards including compliance with applicable seismic design standards found in the latest editions of the California Building Code (CBC) and American Society of Civil Engineers (ASCE) 7 (ASCE-7 Minimum Design Loads for Buildings and Other Structures).

With implementation of EBMUD standard practices, including EBMUD's Pumping Plant Design Guide, EBMUD Engineering Standard Practice 550.1, Seismic Design Requirements, which include the latest applicable CBC and ASCE seismic codes, and because the Project site is not within mapped earthquake fault, landslide, or liquefaction zones, the potential for exposure of people or structures to potential substantial adverse effects during construction or operation, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, liquefaction, or landslides is less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard practices language.

**New Storm Drain Pipeline Construction and Operation**
As shown in Figure 3.4.7-1, the new storm drain pipeline is not located within earthquake fault, landslide, or liquefaction zones. However, ground shaking is an unavoidable hazard for the new storm drain pipeline because it is located approximately 1,000 feet from the active Hayward Fault Zone and is in a seismically active region.

The design of the storm drain pipeline would adhere to the most current CBC (based on the Uniform Building Code) seismic design criteria, as well as requirements of the San Pablo Municipal Code, and policies contained in the San Pablo General Plan, which would reduce the potential for substantial adverse effects from seismic-related ground shaking, liquefaction, or landslides to a less-than-significant level.

**b. Less than Significant Impact.**

**Construction**
The excavation and grading activities that are planned during construction of the new PP and storm drain pipeline would increase exposure of topsoil to erosion. Storm weather (e.g., wind and rain) could also result in soil erosion.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 1.1.B, Site Activities, and Section 1.3.A, Storm Water Management, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, which includes provisions for preventing soil erosion and loss of soil during construction, including the diversion of surface waters and maintenance of the construction site to minimize erosion and loss of soil, and requires contractors to submit a Storm Water Pollution Prevention Plan (SWPPP) to EBMUD that describes requirements to prevent the run-off of polluted stormwater from the construction site even if the Project does not require a Construction General Permit (CGP) and requires that the SWPPP shall conform to all State Water Resources Control Board (SWRCB) requirements for a CGP SWPPP.

With implementation of EBMUD's Standard Construction Specification 01 35 44, including Section 1.1.B, Site Activities, and Section 1.3.A, Storm Water Management, which includes erosion control requirements that would reduce the potential for construction related soil erosion and loss of topsoil by including provisions for the control of runoff, including diversion and drainage of surface waters from construction sites, and submittal of a SWPPP, the impacts related to soil erosion and loss of topsoil would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**
The new storm drain pipeline alignment would be paved following completion of construction and therefore has no impact related to soil erosion or loss of topsoil during operation. The Project site would be paved and landscaped after construction and therefore have no impact related to soil erosion or loss of topsoil during operation.

**c. Less than Significant Impact.**

**Construction and Operation**

Landslides:

As shown in Figure 3.4.7-1, the new PP site and new storm drain pipeline alignment are not located within earthquake-induced landslide zones.

Therefore, there is no impact associated with landslides.

Liquefaction and Lateral Spreading:

As shown in Figures 3.4.7-1, the new PP and storm drain pipeline alignment are not located within a liquefaction zone.

Therefore, there is no impact associated with liquefaction and lateral spreading.

Subsidence and Soil Collapse:

Soils that are susceptible to subsidence or collapse are typically associated with projects that include the injection or extraction of groundwater and/or oil or are in Karst terrain (carbonate rock terrains where dissolution cavities occur). As described in Section 3.4.10, Hydrology and Water Quality, the Project would not change the existing groundwater levels. Impacts associated with dewatering-induced settlement would therefore be less than significant.

Unsupported excavations into soft or loose soils can cause soil collapse. However, as detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 1.3.K, Excavation Safety Plan, of EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements, which requires the contractor submit to, and receive approval by, EBMUD an excavation safety plan showing the details of the design of shoring, bracing, sloping or other provisions to be made for worker protection during such excavation meeting the requirements of the Construction Safety Orders, Title 8, California Code of Regulations.

With implementation EBMUD's Standard Construction Specification 01 35 24, Project Safety Requirements, including Section 1.3.K, Excavation Safety Plan, which includes safety requirements such as details of the design of excavation shoring, bracing, sloping or other provisions to be made for worker protection from excavation soil collapse, the risk of soil collapse during excavations would be reduced to less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**d. Less than Significant Impact.**

Expansive soils are soils that possess a "shrink-swell" characteristic, also referred to as linear extensibility. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. Changes in soil moisture can result

from a variety of sources, including rainfall, landscape irrigation, utility leakage, roof drainage, etc.

**Construction and Operation**
The Natural Resources Conservation Service (NRCS) Web Soil Survey indicates that the Project site and new storm drain pipeline alignment are located in soils with moderate shrink-swell potential, which would result in a potentially significant impact due to the effect those soils could have on the stability and longevity of the new PP building and storm drain pipeline.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including EBMUD's Engineering Standard Practices 512.1, Water Main and Services Design Criteria, and 550.1, Seismic Design Requirements, which specifies minimum design requirements to follow in the design of PPs and pipelines. All facilities would be designed to withstand the effects of expansive soils and would follow recommendations of the geotechnical investigation to ensure that engineered structures and pipelines can withstand expansive soils.

With implementation of EBMUD Engineering Standard Practices 512.1, Water Main and Services Design Criteria, and 550.1, Seismic Design Requirements, which require design of PPs and pipelines to withstand the effects of expansive soils, and by following recommendations of the geotechnical investigation to withstand effects of expansive soils, impacts of the Project associated with soil expansion would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard practices language.

**e. No Impact.**

Wastewater generation or disposal is not a part of the Project; therefore, soils would not be used for the treatment or disposal of wastewater during construction or operation. During construction, temporary self-contained toilets and hand washing facilities would be located on site. Any wastewater generated by these facilities would be hauled off site for treatment and disposal. Therefore, there would be no impacts associated with capability of soils to dispose of wastewater.

**f. Less than Significant Impact.**

**Construction**
The Project would be constructed on highly disturbed urban land at the Project site, and in existing roadways at the new storm drain pipeline alignment. Because these areas have been previously disturbed, soils in these areas are not expected to contain fossils. In the unlikely event that fossils are encountered during construction, impacts could be potentially significant.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects have been incorporated into the Project, including Section 3.10, Protections of Cultural and Paleontological Resources, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, which requires that staff be trained to recognize paleontological resources and that if resources are encountered, construction must be stopped so that paleontological resources can be evaluated and protected.

With implementation of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, including Section 3.10, Protection of Cultural and Paleontological Resources, which requires implementation of procedures that address the inadvertent discovery of paleontological resources and ensures compliance with legal requirements regarding the protection of such resources, the Project's construction impacts related to paleontological resources are less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**
No ground disturbing activities would occur during operation of the new PP and storm drain pipeline.

## REFERENCES

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EBMUD. (2006, October). *Engineering Standard Practice 512.1, Water Main and Services Design Criteria.*

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WGCEP (Working Group on California Earthquake Probabilities). (2015). *UCERF3: A new earthquake forecast for California's complex fault system: U.S. Geological Survey Fact Sheet 2015–3009.*

Panorama Environmental, Inc. (2021, June). *East Bay Municipal Utility District Wildcat Pumping Plant Project Greenhouse Gas Technical Report*.

## 3.4.8 Greenhouse Gas Emissions

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

## DISCUSSION

The GHG emissions impact analysis is based upon the Wildcat Pumping Plant Project Greenhouse Gas Technical Report (Panorama, 2021) that includes a review of existing greenhouse gas emissions information and research, and analysis completed for the Project site and new storm drain pipeline alignment. The greenhouse gas emissions impact analysis considers both operational and construction impacts associated with the Project.

GHGs are gases that trap heat in the atmosphere and include carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), and fluorinated gases, such as hydrofluorocarbons.
Some gases are more effective than others at making the planet warmer. Therefore, each GHG has been assigned a global warming potential (GWP) to reflect how long it remains in the atmosphere, on average, and how strongly it absorbs energy. Gases with a higher GWP absorb more energy, per pound, than gases with a lower GWP. GHGs with high GWPs, which are known as super GHGs, include $CH_4$ and $N_2O$. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of equivalent $CO_2$ ($CO_2e$).

An expanding body of scientific research supports the theory that global warming is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it would increasingly do so in the future. The climate and several naturally occurring resources within California could be adversely affected by the global warming trend. Increased precipitation and sea level rise could increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

### a. Less than Significant Impact.

BAAQMD identifies sources of information on potential thresholds of significance and mitigation strategies for operational GHG emissions from land-use development projects in its CEQA Air Quality Guidelines. The BAAQMD CEQA Guidelines also outline a methodology for estimating GHG emissions. For quantifying a project's GHG emissions, BAAQMD recommends that all GHG emissions from a project be estimated, including a

project's direct and indirect GHG emissions from operations. Direct emissions refer to emissions produced from the on-site combustion of energy, such as natural gas used in furnaces and boilers, emissions from industrial processes, and fuel combustion from mobile sources. Indirect emissions are emissions produced off site from energy production and water conveyance due to a project's energy use and water consumption. BAAQMD has provided guidance on detailed methods for modeling GHG emissions from proposed projects (BAAQMD, 2017).

The BAAQMD CEQA Guidelines include significance thresholds for land use development projects and other projects with stationary sources that generate GHGs. BAAQMD's GHG threshold is defined in terms of $CO_2e$, the metric that accounts for the emissions from various GHGs based on their GWP. If annual emissions of operational-related GHGs exceed these threshold levels, the proposed Project would result in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact to global climate change. However, for this Project, construction activities would be the primary source of GHG emissions. Once operational, the Project would not include any direct stationary sources of emissions on the site. GHG emissions from worker trips for maintenance activities as well as indirect emissions from electricity use for operation and maintenance would be similar to existing conditions and is expected to result in no net change to operational emissions. The BAAQMD CEQA Guidelines do not include significance thresholds for construction-related GHG emissions but recommend that construction-related GHG emissions be quantified and disclosed.

**Construction**
GHG emissions associated with construction of the Project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. Although BAAQMD has not adopted thresholds of significance for construction related GHG emissions, BAAQMD recommends quantifying emissions and disclosing that GHG emissions would occur during construction. BAAQMD also encourages the incorporation of BMPs to reduce GHG emissions during construction where feasible and applicable.

Both the CalEEMod version 2016.3.2 and the Sacramento Air Quality Management District Road Construction Emissions Model (RCEM) version 9.0 were used to estimate emissions. The areas of each construction site and other Project-specific information were input into the models to estimate GHG emissions from construction of the Project. GHG emissions associated with construction are estimated to be 253 Metric Tons (MT) of $CO_2e$ which are the emissions from construction equipment used for site preparation, construction of the PP and associated equipment, and storm drain pipeline installation; vendor and hauling truck trips; and worker trips.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 3.5.A, Air Quality and Emissions Control, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, which requires EBMUD

and its Contractor to implement air emission control BMPs to minimize short-term construction diesel exhaust emissions, including GHG emission controls that would reduce GHG emissions from fuel combustion by maintaining equipment tire pressure, maintaining construction equipment according to manufacturer's specifications, and requiring BACT on all equipment.

With implementation of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, including Section 3.5.A, Air Quality and Emissions Control, which requires BMPs to reduce GHG emissions, the Project's construction impacts related to GHG emissions would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**
Operational GHG emissions of the new PP would be associated with worker trips to conduct routine inspection and maintenance activities, temporary emergency diesel-fueled generator, temporary diesel-fueled portable pumps, and energy usage. The new storm drain pipeline and air valves are not expected to generate GHG emissions during operation. The new PP will replace the existing Road 20 Portable PP and be operated and monitored remotely similar to the existing Road 20 RCS. Therefore, it would not include any new sources of GHG emissions. A portable emergency generator or emergency portable pumps may be used at the site but would not be permanent or required for normal operation of the facility. Worker vehicle trips for operation and maintenance would be similar to existing conditions, with approximately two trips per month. Indirect operational GHG emissions would be associated with emissions from electricity generation for line power provided by the Pacific Gas and Electric Company to Project facilities. The operation of the new PP would result in a net increase in electricity use. However, this increase would result in an extremely small change for the overall region. The net GHG increase for the Project in 2030 is expected to be 18.28 MT CO2e, well below the BAAQMD threshold of 660 MT CO2e. Furthermore, the removal of the diesel-operated Road 20 Portable PP on site will result in a reduction of GHG emissions. For these reasons, the operation of the Project would not generate a net increase in GHG emissions that would, either directly or indirectly, have a significant impact on the environment.

**b. Less than Significant Impact.**

To determine whether the Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, Project GHG emissions are analyzed in the context of the GHG reduction goals of the Global Warming Solutions Act of 2006, California's 2017 Climate Change Scoping Plan Update, the Bay Area 2017 Clean Air Plan (CAP), and the San Pablo Climate Action Plan, which are discussed below.

Global Warming Solutions Act of 2006 (Assembly Bill 32)
In September 2006, the State legislature passed, and Governor Schwarzenegger signed, Assembly Bill (AB) 32 (Chapter 488, Statutes of 2006), the Global Warming Solutions Act of 2006, which set the 2020 GHG emissions reduction goal into law. AB 32 directed the

California Air Resources Board (CARB) to begin developing discrete early actions to reduce GHG emissions while also preparing the Climate Change Scoping Plan, which outlines a framework of practices that would eventually be adopted and implemented to reach AB 32 goals (CARB, 2017).

2017 Climate Change Scoping Plan Update

In April 2015, Governor Brown signed Executive Order (EO) B-30-15, which extended the goals of AB 32, setting a GHG emissions target at 40 percent of 1990 levels by 2030. On September 8, 2016, Governor Brown signed Senate Bill (SB) 32, which legislatively established the GHG reduction target of 40 percent of 1990 levels by 2030. In November 2017, CARB issued *California's 2017 Climate Change Scoping Plan* (2017 Scoping Plan Update; CARB, 2017) to reflect the 2030 target set by EO B-30-15 and codified by SB 32.

Bay Area 2017 Clean Air Plan (CAP)

BAAQMD and other agencies prepare clean air plans as required under the State and Federal Clean Air Acts. The Bay Area 2017 CAP, entitled Spare the Air/Cool the Climate, is a blueprint for BAAQMD's efforts to reduce air pollution and protect public health and the global climate. Consistent with the GHG reduction targets adopted by the state of California, the Bay Area 2017 CAP lays the groundwork for the BAAQMD's long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050 (BAAQMD, 2017).

Climate Action Plan

The City of San Pablo prepared a Climate Action Plan to reduce citywide GHG emissions. San Pablo approved a goal of 15 percent reduction of 2005 emission levels in GHG emissions by 2020 and 30 percent by 2030. A variety of strategies are identified within the San Pablo Climate Action Plan to achieve emissions reductions in the transportation, residential, and commercial sector.

**Construction**

Construction of the new PP and associated facilities and installation of the off-site storm drain pipeline in Road 20 would involve operation of diesel-fueled off-road construction equipment and on-road vehicles associated with worker commute, material delivery, and hauling that would directly generate GHG emissions. Actions in the 2017 Scoping Plan Update, which are pertinent to project construction relate to emission controls imposed in the future, including future implementation of Phase 2 controls to reduce GHG emissions in new heavy-duty vehicles beyond 2018 and continued implementation of diesel controls to reduce black carbon emissions from heavy-duty on-road engines as well as off-road engines. These actions would be implemented by CARB as new standards and policies and the BAAQMD through the implementation of its Bay Area 2017 CAP. Heavy-duty vehicles used during Project construction would comply with all applicable emission standards.

Neither the City of San Pablo nor BAAQMD have adopted thresholds of significance for construction related GHG emissions, though BAAQMD encourages the incorporation of BMPs to reduce GHG emissions during construction where feasible and applicable. Both

BAAQMD's Bay Area 2017 CAP and the San Pablo Climate Action Plan identify goals requiring adoption of ordinances to promote community-wide waste reduction goals and recycling of construction and demolition materials in commercial and public construction projects.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 3.5.A, Air Quality and Emissions Control, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements which requires construction crews use electrically powered construction equipment whenever available and feasible, and recycling demolition debris for reuse to the extent feasible. Therefore, the Project would be consistent with the goals in the Bay Area 2017 CAP and the San Pablo Climate Action Plan and construction related GHG emissions would not conflict with any plans, policies, or regulations adopted for the purpose of reducing GHG emissions.

With implementation of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, including Section 3.5.A, Air Quality and Emissions Control, which includes provisions to ensure that construction diesel trucks and off-road equipment would comply with the latest vehicle emission standards established by CARB pursuant to the 2017 Scoping Plan Update and recycling demolition debris and excavated soil for reuse, construction of the Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases and the impact would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language

**Operation**
In 2008, EBMUD adopted a climate change objective in EBMUD's Strategic Plan focusing on using resources (economic, environmental, and human) in a responsible manner that meets current needs without compromising the ability to meet future needs. In response to the climate change objective, EBMUD prepared the EBMUD 2014 Climate Change Monitoring and Response Plan (CCMRP). EBMUD also prepared and updated an Action Plan that provides guidance to inform EBMUD of decisions regarding water supply, water quality, and infrastructure planning. EBMUD's goal is to eliminate GHG emissions by 2030 (EBMUD, 2021). In 2013, GHG emissions generated by EBMUD were 31,244 MT $CO_2e$ which was 31 percent below 2000 GHG emission levels. EBMUD tracks GHG emissions per the California Climate Action Registry protocols (EBMUD, 2014).

According to EBMUD's 2014 CCMRP, the majority of EBMUD's total operational GHG emissions are indirect GHG emissions associated with the use of electrical energy, and 22 percent of EBMUD's total GHG emissions are direct GHG emissions associated with fleet operations (vehicles and portable equipment). The new PP will operate in addition to the existing Road 20 RCS. Worker vehicle trips for operation and maintenance would be similar to existing conditions, with approximately four one-way trips (two roundtrips) per month. GHG emissions associated with maintenance would be similar to existing levels with no substantial increase in direct operational GHG emissions resulting from the Project. EBMUD's heavy-duty maintenance vehicles would comply with the latest vehicle emission

standards established by CARB pursuant to the 2017 Scoping Plan Update. Therefore, the Project's direct operational GHG emissions would not conflict with 2017 Scoping Plan Update actions or the Bay Area 2017 CAP.

With respect to indirect operational GHG emissions associated with electrical energy use, the Project would result in a slight increase in electricity demand over existing conditions. However, as set forth in EBMUD Energy Policy 7.07 adopted by EBMUD's Board of Directors, EBMUD's goal is to be carbon free and to eliminate GHG emissions for indirect and direct emissions by 2030 (EBMUD, 2020). Through the increased use of renewable diesel, purchase of electricity from greener and more sustainable sources, and reduced raw water pumping, EBMUD has reduced total GHG emissions since 2000. To meet EBMUD's indirect emissions GHG goal, the Energy Policy requires EBMUD to focus on energy conservation, development of economical renewable energy projects, GHG offset projects, and the purchase of renewable energy credits or carbon credits. Due to implementation of the Energy Policy, EBMUD consistently meets its annual indirect GHG emissions reduction goals and would continue to comply with the Energy Policy, ensuring that indirect emissions associated with the Project would be minimized. Therefore, the project's indirect operational GHG emissions would not conflict with the state's 2017 Scoping Plan Update, Bay Area 2017 CAP, or the BAAQMD CEQA significance thresholds and the impact would be less than significant.

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Panorama Environmental, Inc. and Illingworth & Rodkin, Inc. (2021, June). *East Bay Municipal Utility District Wildcat Pumping Plant Project Greenhouse Gas Technical Report*.

## 3.4.9 Hazards and Hazardous Materials

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☐ | ☐ | ☒ | ☐ |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☐ | ☐ | ☒ | ☐ |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ☒ | ☐ |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☒ | ☐ |

## DISCUSSION

For the purposes of this section, the term hazardous material refers to both hazardous materials and hazardous wastes. The California Health and Safety Code Section 25501(n) define hazardous material as: any material that because of its quantity, concentrations, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

Hazardous waste is any waste that meets the criteria for identification of a hazardous waste as set forth in California Code of Regulations, Title 22, Section 66261.3. A waste may be hazardous if it exhibits one or more of the characteristics of toxicity, reactivity, corrosivity, or ignitability, or if it is included on a specific list of wastes the United States Environmental Protection Agency (U.S. EPA) and/or Department of Toxic Substances Control (DTSC) has determined are hazardous because the waste poses substantial present or potential hazards to human health or the environment.

**a. and b. Less than Significant Impact.**

**Construction**

***Routine Transport, Use, Disposal, and Accidental Release of Hazardous Materials***

Project construction would require the use of hazardous materials such as fuels, lubricants, paints, and solvents for motorized heavy equipment, such as excavators, bulldozers, and backhoes. Minor maintenance activities and refueling of equipment and vehicles from mobile or stationary fuel supply sources could occur at the Project work areas during construction. If not properly managed, the routine transport, use, and disposal of hazardous materials could pose a threat to human health or the environment. For example, hazardous materials have the potential to be released or spilled accidentally during maintenance, refueling, or servicing of equipment and vehicles. Improperly disposed of, spilled, or leaking hazardous materials could create a significant hazard to workers, the public, or the environment.

Hazardous materials handling, disposal, and transport must occur in accordance with applicable federal, state, and local regulations. Hazardous materials must be transported to and from the Project site in accordance with Resource Conservation and Recovery Act (RCRA) and United States Department of Transportation (U.S. DOT) regulations, managed in accordance with the Contra County Department of Environmental Health's Certified Unified Program Agency (CUPA) programs, and disposed of in accordance with RCRA and the California Code of Regulations at a facility that is permitted to accept the waste. Workers handling hazardous materials are also required to adhere to federal Occupational Safety and Health Administration (OSHA) and California Division of Occupational Safety and Health Administration (CAL OSHA) health and safety requirements.

In addition to complying with federal, state, and local regulations, as detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project including Section 1.3.A.2, Storm Water Pollution Prevention Plan, Section 1.3.C, Construction and Demolition Waste Disposal Plan, and Section 1.3.D, Spill Prevention and Response Plan, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, Section 1.3.B, Project Health and Safety Plan, of EBMUD's Standard Construction Specification 01 35 24, Project Safety Requirements, and EBMUD Procedure 711, Hazardous Waste Removal. The contents and requirements are summarized below.

- Stormwater Pollution Prevention Plan (SWPPP) - In accordance with State Water Resources Control Board (SWRCB) requirements and Section 1.3.A.2, Storm Water Pollution Prevention Plan, of EBMUD Standard Construction Specification 01 35 44,

Environmental Requirements, the Contractor would be required to prepare and implement a SWPPP for coverage under the Construction General Permit. The SWPPP would require implementation of best management practices (BMPs) for hazardous materials storage and containment of releases to prevent runoff into existing stormwater collection systems or waterways.

- Construction and Demolition Waste Disposal Plan - In accordance with Section 1.3.C, Construction and Demolition Waste Disposal Plan, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, the Contractor would be required to prepare a Demolition Waste Disposal Plan to describe measures for removing, handling, transporting, and disposing of any waste material, and requires the Contractor to submit copies of wastes manifests prior to disposal of hazardous wastes and documentation that the waste hauler is regulated by the state to transport hazardous wastes.
- Spill Prevention and Response Plan - In accordance with Section 1.3.D, Spill Prevention and Response Plan, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, the Contractor would be required to prepare a Spill Prevention and Response Plan to specify methods for preventing and controlling the accidental release of hazardous materials used during construction and would include a list of the hazardous substances proposed for use or generated on site; measures to be taken to prevent spills, monitor hazardous substances, and provide immediate responses to spills; phone numbers for notifying appropriate regulatory agencies and EBMUD; identification of spill-related worker and public health and safety issues for each known hazardous substance used on the jobsite; and spill control and cleanup procedures.
- Project Health and Safety Plan - In accordance with Section 1.3B, Project Health and Safety Plan, of EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements, the Contractor would be required to prepare a Project Safety and Health Plan that addresses anticipated hazards related to hazardous materials, describes appropriate training requirements, and identifies qualified hazardous material testing personnel.
- Hazardous Waste Removal – In accordance with EBMUD Procedure 711, EBMUD and its Contractor would comply with specific steps outlined for characterizing wastes, coordinating waste disposal, maintaining inventories of hazardous waste, and tracking any hazardous waste handling and disposal requirements.

Because the Project would comply with mandatory existing regulations and programs and with implementation of EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements, including Section 1.3.B, Project Health & Safety Plan, and EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, including Section 1.3.A.2, Storm Water Pollution Prevention Plan, Section 1.3.C, Construction and Demolition Waste Disposal Plan, and Section 1.3.D, Spill Prevention and Response Plan, and EBMUD Procedure 711, Hazardous Waste Removal, which require preparation and implementation of a SWPPP with measures to prevent discharge of stormwater contaminated with any potential pollutants from the Project site, a Spill Prevention and Response Plan with measures for preventing and controlling the accidental release of hazardous materials used during Project construction, a Construction and Demolition Waste Disposal Plan with

measures for removing, handling, transporting, and disposing of any waste material and requiring waste manifests prior to disposal, a Project Safety and Health Plan with measures to protect workers from exposure to contaminants that could potentially be released during construction, and compliance with EBMUD Procedure 711 including steps for characterizing, disposing of, and tracking hazardous waste, the potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

***Superchlorinated Water for Pipeline Disinfection***

During construction, approximately 170-feet of new 36-inch diameter suction and discharge pipelines connecting the new Wildcat PP to the existing water distribution system would be filled with superchlorinated water to disinfect the pipelines before placing the pipelines in service. Superchlorinated water contains chlorine residual concentrations significantly greater than potable water, generally in the range of approximately 100 to 300 milligrams per liter (mg/L). Once the disinfection of the pipelines is complete, the superchlorinated water would need to be discharged. The planned discharge and release of superchlorinated water after testing and disinfection of new pipelines could potentially violate water quality standards or waste discharge requirements.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 1.3.B, Water Control and Disposal Plan, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, which requires that the Contractor submit a detailed Water Control and Disposal Plan for EBMUD's acceptance prior to any work at the jobsite. The Water Control and Disposal Plan shall comply with requirements of all applicable discharge permits. The Water Control and Disposal Plan requires all drinking water system discharges to the storm drain be dechlorinated with acceptable turbidity and pH. Superchlorinated discharges are required to be sent to the sanitary sewer system, in accordance with a Sanitary Sewer Discharge permit from the appropriate regulatory agency.

With implementation of the requirements specified in EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, Section 1.3.B, Water Control and Disposal Plan, superchlorinated water discharges from disinfection of the new pipelines required for the Project would either be discharged to the sanitary sewer system or properly dechlorinated and tested before being discharged into the storm drain, ensuring that no water quality standard or waste discharge requirement violations occur as a result of superchlorinated water discharges associated with pipeline disinfection; therefore, the potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

***Accidental Rupture of Subsurface Utilities***
Subsurface high-priority utilities could be inadvertently damaged during excavation activities at the Project site, along the new storm drain pipeline alignment, or at the air valve construction sites.

Consistent with California Government Code 4216.2, the Contractor is required to contact Underground Service Alert (USA) North at least 2 working days prior to initiation of ground-disturbing activities. USA North would notify the utility providers in the vicinity of the planned excavations to mark the location of underground utilities and coordinate with the Contractor (as necessary) to avoid damages. Construction workers are required to adhere to CAL OSHA health and safety requirements for open trench construction excavations.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project including Section V, Requirements and Guidelines of Planning, Design, and Construction, of EBMUD's Engineering Standard Practice (ESP) 514, Identifying Buried Conflicts, and Section 1.3.J, Electrical Safety Plan, and Section 1.3.B, Project Health & Safety Plan, of EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements. The contents and requirements of these standard practices and procedures are summarized below.

- Identifying Buried Conflicts - In accordance with EBMUD's ESP 514, Identifying Buried Conflicts, EBMUD and its Contractor would be required to identify existing utilities; follow guidelines for collecting/depicting utility data during Project planning, design, and construction; and determine factors for identifying buried conflicts.
- Electrical Safety Plan - In accordance with Section 1.3.J, Electrical Safety Plan, of EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements, the Contractor is required to prepare an Electrical Safety Plan, if the Project is determined to be located adjacent to an underground electrical transmission line, that would identify measures to protect workers from hazardous voltages on pipelines or associated structures.
- Project Health and Safety Plan - In accordance with Section 1.3.B, Project Health & Safety Plan, of EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements, the Contractor is required to prepare a Project Safety and Health Plan that would address anticipated hazards related to open trench construction and excavations and include an Emergency Action Plan that requires notification of responsive agencies in the event of an accident.

Because the Project would comply with mandatory existing regulations and programs and with implementation of EBMUD ESP 514, Identifying Buried Conflicts, and EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements including Section 1.3.B, Project Health & Safety Plan, and Section 1.3.J, Electrical Safety Plan, which requires researching, collecting, identifying, and depicting existing utilities, and preparation and implementation of a Project Safety and Health Plan and an Electrical Safety Plan that would identify measures to protect workers from hazardous voltages and hazardous materials, the

Project impacts from accidental rupture of high-priority subsurface utilities would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

***Disturbance of Hazardous Materials***

Construction activities which may have the potential to disturb existing unknown hazardous materials in the soil or groundwater include soil excavation at the Project site and along the new storm drain pipeline alignment. The air valve replacement and construction work is part of EBMUD's existing facilities, located in disturbed areas, and requires minimal work. Therefore, it is not expected to disturb hazardous materials in the soil and groundwater.

A review of SWRCB GeoTracker database and DTSC EnviroStor database was conducted to determine if there is a potential for and/or known sources of subsurface contamination at the Project site and along the new storm drain pipeline alignment. No hazardous materials release sites were identified at the Project site and there is no evidence of contamination along the new storm drain pipeline alignment.

The chemical quality of soil and groundwater that may be encountered during Project-related excavation has not been assessed and unanticipated contaminated soil or groundwater could be encountered. The proper management and disposal (if necessary) of contaminated soil and/or groundwater is required to ensure the protection of workers and the environment. The disturbance of contaminated soil and/or groundwater (if any) during proposed Project excavation activities for construction activities could, therefore, pose a significant hazard to construction workers and/or the environment.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project including Section 1.3.B, Project Health & Safety Plan, of EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements, which requires preparation and implementation of a Project Safety and Health Plan that addresses anticipated hazards related to hazardous substances, fall protection, confined spaces, and trenches or excavations. The Project Safety and Health Plan must designate a Project Health and Safety Representative and a qualified person to take air samples and measurements of known or suspected hazardous materials. The Project Safety and Health Plan also requires all personnel who would likely be exposed to hazardous substances have appropriate training. The Project Safety and Health Plan shall include an Emergency Action Plan in the event of an accident or serious unplanned event that requires notifying any responsive agencies (e.g., fire department, PG&E, rescue teams).

Because the Project would comply with mandatory existing regulations and programs and with implementation of EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements including Section 1.3.B, Project Health & Safety Plan, which requires preparation and implementation of a Project Safety and Health Plan that addresses anticipated hazards related to hazardous substances, fall protection, confined spaces, and trenches or excavations, the Project impacts from disturbance of hazardous materials would be less than significant.

**Operation**
Operation of the Project would not involve the routine transport of hazardous materials to or from the Project site or involve ground disturbance that could result in a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. Solvents, cleaners, or other chemicals may be used during maintenance of the new PP for cleaning equipment or to prevent corrosion but would be used in very small quantities. The use, storage, and transport of hazardous materials throughout the operational life of the Project would be carried out in accordance with federal, state, and local regulations for transport, storage, use, and disposal of hazardous materials. Operation of the Project would not require excavation or other ground-disturbing activities that could result in accidental release of subsurface hazardous materials or impacts to subsurface utilities. The potential Project impacts related to hazardous materials during operation would be less than significant.

**c. Less than Significant Impact.**

**Construction**
Construction of the Project would require the use of some hazardous materials, including fuels, lubricants, paints, and solvents, at the Project site and along the new storm drain pipeline alignment. The Walter T. Helms Middle School is located adjacent to the Project site with buildings as close as approximately 50 feet west of the Project site and approximately 25 feet south of the new storm drain pipeline in Road 20. While diesel particulate matter, a toxic air contaminant, would be emitted during construction, the impacts of these emissions would be less than significant, as described above in Section 3.4.III, Air Quality. The work associated with the installation and replacement of the air valves is minimal and not expected to result in any impacts.

Hazardous materials used during construction would be managed in accordance with applicable regulations and CUPA programs, and as detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects have been incorporated into the Project including Section 1.3.B, Project Health & Safety Plan, of EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements, and Section 1.3.D, Spill Prevention and Response Plan, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, which require the development of a Project Safety and Health Plan and Spill Prevention and Response Plan, respectively. The Project Safety and Health Plan would address anticipated hazards related to hazardous materials and include an Emergency Action Plan that provides notification procedures in the event of an accident and the Spill Prevention and Response Plan would define protocols to prevent and control the accidental release of hazardous materials during construction, identify notification protocols, and provide spill control and cleanup procedures.

Because the Project is not anticipated to emit hazardous air emissions or include hazardous substances in a quantity equal to or greater than the Bay Area Air Quality Management District threshold, and with implementation of EBMUD Standard Construction Specification

01 35 24, Project Safety Requirements, including Section 1.3.B, Project Health & Safety Plan, and EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, including Section 1.3.D, Spill Prevention and Response Plan, which would implement standard practices and an Emergency Action Plan related to the use of hazardous or acutely hazardous materials, and would define protocols to prevent and control the accidental release of hazardous materials during the Project construction, the Project impact on nearby schools would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**
Operation of the Project may require periodic use of solvents, cleaners, or other chemicals as part of routine maintenance activities for the new PP; however, these would be used in very small quantities. Therefore, the Project would not be expected to impose a health or safety hazard to persons who would attend or would be employed at the school and impacts to the school would be less than significant.

**d. No Impact.** The Project site was checked against regulatory agency databases, such as Cal/EPA DTSC's online data management system, and the Envirostor Database, which is compiled pursuant to Government Code Section 65962.5. No elements of the Project are located on a site included on a list of hazardous materials sites. No impacts related to hazards or releases from the Project sites from construction or operation of the Project would occur.

**e. No Impact.** No elements of the Project are located within an airport land use plan or within two miles of a public airport or public use airport. No impacts related to airports or airport land use plans from construction or operation of the Project would occur.

**f. Less than Significant Impact.**

**Construction**
The City of San Pablo has adopted the Comprehensive Emergency Plan that provides guidance for responding to extraordinary emergency situations associated with natural, man-made and technological disasters and includes a description of the City of San Pablo's basic plan, functional annexes, and Standard Operating Procedures. Per the San Pablo General Plan, several excavation routes (not publicly identified) through San Pablo have been identified to be used in case of catastrophic emergencies. Construction of the new storm drain pipeline could require partial closure of roadways, which could impede emergency access during these closures.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project including Section 1.2, Submittals, of EBMUD Standard Construction Specification 01 55 26, Traffic Regulation, which requires the preparation and submittal of a Traffic Control Plan that conforms to the most current version of the Caltrans Manual of Traffic Controls for Construction and Maintenance Work Zones and requires that the Traffic Control Plan include

a description of emergency response vehicle access. If the road or area is completely blocked, preventing access by an emergency responder, a contingency plan must be included.

With implementation of the requirements specified in EBMUD Standard Construction Specification 01 55 26, Traffic Regulation, including Section 1.2, Submittals, which requires the preparation and submittal of a Traffic Control Plan, the Project impacts on emergency response and evacuation during construction would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**
Operation of the new PP and storm drain pipeline would not require lane or road closures and would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. No impacts to emergency response or evacuation plans from operation of the Project would occur.

**g. Less Than Significant Impact.**
The new PP, storm drain pipeline, and air valves, are located entirely in developed suburban areas and would not include any work in wildland areas. The Project site is identified to have little or no fire threat per the City's General Plan Wildfire Hazards Map. The Project would not expose people or structures to a potential wildfire.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 1.6, Fire Prevention and Protection, of EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements. Pursuant to Section 1.6, Fire Prevention and Protection, the site would be supplied and maintained with adequate firefighting equipment capable of extinguishing incipient fires. All work would comply with applicable federal, local, and state fire-prevention regulations including provisions for wildfire protection building construction, hazardous vegetation and fuel management, defensible space, fire reporting, access for firefighting, and portable fire extinguishers.

With implementation of the requirements specified in EBMUD's Standard Construction Specification 01 35 24, Project Safety Requirements, including Section 1.6, Fire Prevention and Protection, the site would be supplied and maintained with adequate firefighting equipment capable of extinguishing incipient fires and complies with applicable fire code regulations that include provisions for wildfire protection building construction, hazardous vegetation and fuel management, defensible space, fire reporting, access for firefighting, and portable fire extinguishers; therefore, the impacts from construction or operation of the Project would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

## REFERENCES

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EBMUD. (2020, October). Standard Construction Specification. *Section 01 35 24, Project Safety Requirements.*

EBMUD. (2018, August). Standard Construction Specification. *Section 01 35 44, Environmental Requirements.*

EBMUD. (2017, February 9). Standard Construction Specification. *Section 01 55 26, Traffic Regulation*.

## 3.4.10 Hydrology and Water Quality

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? | ☐ | ☐ | ☒ | ☐ |
| b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | ☐ | ☐ | ☒ | ☐ |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: | ☐ | ☐ | ☒ | ☐ |
| i) Result in substantial erosion or siltation on- or off-site; | ☐ | ☐ | ☒ | ☐ |
| ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; | ☐ | ☐ | ☒ | ☐ |
| iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or | ☐ | ☐ | ☒ | ☐ |
| iv) impede or redirect flood flows? | ☐ | ☐ | ☒ | ☐ |
| 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? | ☐ | ☐ | ☒ | ☐ |

### DISCUSSION

### a. Less than Significant Impact.

#### Construction

Planned potable water discharges associated with the construction of the Project include draining of water when connecting new pipelines to the distribution system, and the discharge of superchlorinated water upon hydrostatic testing and disinfection of new pipelines. Section IX, Hazards and Hazardous Materials, of this MND discusses in great detail how planned and unplanned discharges and release of superchlorinated water after testing and disinfection of new pipelines could potentially violate water quality standards or waste discharge requirements. These potable water discharges could potentially violate water

quality standards or waste discharge requirements for surface waters through the introduction of chlorinated drinking water to existing drainages.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 1.3.B, Water Control and Disposal Plan, and Section 1.3.D, Spill Prevention and Response Plan, of EBMUD Standard Construction Specifications Section 01 35 44, Environmental Requirements. Pursuant to EBMUD Standard Construction Specifications Section 01 35 44, Section 1.3.B, Water Control and Disposal Plan, a Water Control and Disposal Plan would be prepared for the Project that would comply with requirements of all applicable discharge permits. The Water Control and Disposal Plan would require all drinking water system discharges to the storm drain be dechlorinated with acceptable turbidity and pH, with proper control to prevent erosion, scouring of bank, nuisance, contamination, and excess sedimentation in the receiving waters, and with effective erosion and sediment controls (e.g., straw wattles, pea gravel filter bags). Superchlorinated discharges are required to be sent to the sanitary system, in accordance with a Sanitary Sewer Discharge permit from the appropriate regulatory agency. Pursuant to EBMUD Standard Construction Specifications Section 01 35 44, Section 1.3.D, Spill Prevention and Response Plan, a Spill Prevention and Response Plan would be prepared for the Project which requires methods for preventing and controlling the accidental release of hazardous materials used during Project construction. The Spill Prevention and Response Plan shall include a list of the hazardous substances proposed for use or generated by the contractor on site, including petroleum products, and measures that would be taken to prevent spills, monitor hazardous substances, and provide immediate response to spills. Spill response measures shall address notification of EBMUD and appropriate agencies including phone numbers; spill-related worker, public health, and safety issues; spill control, and spill cleanup.

With implementation of the requirements specified in EBMUD Standard Construction Specifications Section 01 35 44, Environmental Requirements, including Section 1.3.B, Water Control and Disposal Plan, and Section 1.3.D, Spill Prevention and Response Plan, which require the contractor to prepare a Water Control Disposal Plan that would ensure potable water discharges would be controlled, treated, and discharged and a Spill Prevention and Response Plan that would prevent or control the accidental release of potable water during the construction of the Project, the impacts on water quality standards or waste discharge requirements would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

Construction activities for the Project, including clearing and grubbing activities, preparation of construction staging areas would expose soils to the elements (wind and rain). Soils may be entrained in stormwater runoff, potentially affecting water quality in receiving surface waters. Improper use, storage, or disposal of fuels, lubricants, and other chemicals used in construction could also result in the conveyance of contaminants to the receiving surface waters via stormwater runoff. Thus, stormwater discharges could potentially violate water

quality standards or waste discharge requirements or otherwise substantially degrade surface water quality.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 1.3.A, Stormwater Pollution Prevention Plan, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements which requires the contractor to prepare a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP requires measures, such as source control BMPs (e.g., system isolation to reduce or eliminate chemical dosages) and treatment control BMPS (e.g., dechlorination tablets) to be implemented that prevent the discharge of contaminated stormwater runoff from the Project site. Contaminants to be addressed include, but are not limited to, soil, sediment, concrete residue, liquid discharges with pH less than 6.5 or greater than 8.5, and chlorine residuals in potable water discharges, and all other contaminants known to exist at the Project site.

With implementation of the requirements specified in EBMUD Standard Construction Specifications Section 01 35 44, Environmental Requirements, including Section 1.3.A, Stormwater Pollution Prevention Plan, which requires the contractor to prepare a SWPPP that would prevent the discharge of contaminated stormwater runoff from the Project site through controls such as dechlorination tablets, rock filter bags and drain inlet protection, impacts related to the release of contaminated stormwater runoff, a potential violation of water quality standards or waste discharge requirements, the Project impacts would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**

Once construction is complete, there are no potable water discharges planned from the Project site. Roadways will be repaved to their pre-construction condition, the Project site will experience an increase in impervious area due to the new PP roof, paved parking and maintenance areas, and removal of existing trees. However, the Project would incorporate Provision C.3 in the Municipal Regional Stormwater Permit (MRP) for Contra Costa County by utilizing gravel paved areas, stormwater bioretention basins, and landscaped planting. As a result, the impervious area onsite will be minimized and stormwater runoff from the Project site is expected to be less than existing conditions as most of it is designed to flow into the stormwater bioretention basins, landscaped areas, and paved gravel areas on site. The Project site would also be maintained in a manner that keeps it clean and free of trash and other

debris. Therefore, impacts on water quality standards or waste discharge during Project operation would be less than significant

**b. Less than Significant Impact.**

**Construction**

Construction of the Project would not require significant excavation dewatering and therefore construction impacts to groundwater supplies would be less than significant.

**Operation**

As discussed under (a) runoff from the Project site would be reduced with implementation of Provision C.3 in the MRP for Contra Costa County. Stormwater runoff from the impervious surfaces will be directed to the stormwater detention basins, landscaped areas, and paved gravel areas to the fullest extent possible to maximize stormwater treatment and stormwater recharge of soils. Any remaining runoff that is not captured by the stormwater treatment facilities would sheet flow over the driveway and/or sidewalk similar to existing conditions. Therefore, operational impacts on groundwater supplies of the Project would be less than significant.

**c.i through c.iv Less than Significant Impact.** The Project site is located in both the San Pablo Creek and Pinole Creek watersheds. The northern portion of the Project site, which consists of the existing Road 20 RCS, currently sheet drains towards El Portal Drive. The southern portion of the site is currently leased to the adjacent Kona Apartments for parking and has a drain inlet in the approximate center of the property which connects to a storm drain that traverses the adjacent apartment property and connects to the City of San Pablo storm drain system along Church Lane. The Project will remove the drain inlet on the south side of the Project site and redirect runoff to onsite stormwater treatment facilities, including bioretention basins and landscaped areas, which will be installed as part of Provision C.3 discussed under (a) and (b). The new storm drain pipeline along Road 20 is not located within an existing drainage. The nearest drainages to the Project site and new storm drain pipeline are surface drainages along Road 20 and underground storm drains along Church Lane and at the Walter T. Helms Middle School property. The storm drains discharge to the San Pablo Creek, which is located approximately 250 feet to the south of the Project site and 450 feet to the south of the new storm drain pipeline. No wetlands, waters or riparian areas under the jurisdiction of the U.S. Army Corps of Engineers, Regional Water Quality Control Board (RWQCB), or California Department of Fish and Wildlife (CDFW) occur within the Project sites.

**Construction**

Construction activities for the Project would involve minor alterations to the drainage patterns at the Project site after excavation, grading, site paving and construction of the new building. At the Project site and during the pipeline work, accidental release of hazardous

materials such as oil, grease, or fuel during construction could potentially degrade surface water quality.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 1.1.B, Site Activities, Section 1.3.A, Stormwater Pollution Prevention Plan, Section 1.3.B, Water Control and Disposal Plan, and Section 1.3.D, Spill Prevention and Response Plan, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements. Section 1.1B, Site Activities, requires that no construction debris shall be allowed to enter into storm drains or surface waters or be placed where it may be washed by rainfall or runoff outside the construction limits by using methods such as rock filter bags and drain inlet protection, to be implemented that prevent the discharge of contaminated stormwater runoff from the Project site. Contaminants to be addressed include, but are not limited to, soil, sediment, concrete residue, liquid discharges with pH less than 6.5 or greater than 8.5, and chlorine residuals in potable water discharges, and all other contaminants known to exist at the Project site. Section 1.3.B, Water Control and Disposal Plan, requires all drinking water system discharges to the storm drain be dechlorinated with acceptable turbidity and pH, with proper control to prevent erosion, scouring of bank, nuisance, contamination, and excess sedimentation in the receiving waters, and with effective erosion and sediment controls (e.g., straw wattles, pea gravel filter bags). Superchlorinated discharges are required to be sent to the sanitary system, in accordance with a Sanitary Sewer Discharge permit from the appropriate regulatory agency. Section 1.3.D, Spill Prevention and Response Plan, requires methods for preventing and controlling the accidental release of hazardous materials used during Project construction. The Spill Prevention and Response Plan shall include a list of the hazardous substances proposed for use or generated by the contractor on site, including petroleum products, and measures that will be taken to prevent spills, monitor hazardous substances, and provide immediate response to spills. Spill response measures includes notification of EBMUD and appropriate agencies including phone numbers; spill-related worker, public health, and safety issues; spill control, and spill cleanup.

With implementation of EBMUD Standard Construction Specifications 01 35 44 Environmental Requirements, including Section 1.1.B, Site Activities, Section 1.3.A, Stormwater Pollution Prevention Plan, Section 1.3.B, Water Control and Disposal Plan, and Section 1.3.D, Spill Prevention and Response Plan, construction debris will be removed such that it doesn't pollute the storm drains or surface waters; the Project's SWPPP limits delivery of silt and sediment by providing effective stormwater/non-stormwater management; the Water Control and Disposal Plan requires controls regarding liquid discharges from the Project site to prevent erosion, scouring of bank, nuisance, contamination, and excess sedimentation into receiving waters; and the Spill Prevention and Response Plan requires methods to prevent and control the accidental release of hazardous materials used during Project construction. The Project's construction activities will not a) result in substantial erosion or siltation on or off site, b) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on site or off site, c) 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 d) impede or redirect flood flows; therefore, the Project impacts are less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**

The Project will remove the drain inlet on the south side of the Project site and redirect runoff to onsite stormwater treatment facilities, including bioretention basins and landscaped areas, which will be installed as part of Provision C.3 discussed under (a), (b), and (c). Any excess runoff that is not captured will sheet flow across the northern driveway and/or sidewalk similar to existing condition. Although the Project would create approximately 780 square feet of new impervious area due to the new PP roof, paved parking and maintenance areas, and removal of existing trees, implementation of Provision C.3 will increase infiltration and evapotranspiration, resulting in a decrease in surface runoff contributions. Also, long-term operations at the new PP site will not include long-term storage of potential pollutants. Therefore, operation of the Project will not create or contribute runoff water which would a) result in substantial erosion or siltation on or off site, b) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on site or off site, c) 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 d) impede or redirect flood flows, resulting in less than significant impacts.

Along the new storm drain pipeline alignment and at the new and replacement air valve sites, the areas disturbed will be paved again resulting in no net change to drainage patterns and therefore there is no impact.

**d. Less than Significant Impact**

The Project site, new storm drain pipeline alignment, and new and replacement air valves are located sufficiently inland to be out of what would be considered a potential hazard area for seiches, tsunamis, and sea level rise; therefore, there would be no Project impact.

The Project site and new storm drain pipeline alignment are not located in flood hazard zones, as mapped by the FEMA Flood Map Service Center, although several reservoirs are located upstream of the Project site including the San Pablo and Briones Reservoirs. However, the dams on these reservoirs are under the jurisdiction of the Division of Safety of Dams (DSOD), which imposes strict standards for the design, maintenance, and monitoring of its facilities. A seismic upgrade of the dam at San Pablo Dam Reservoir was recently completed to increase its stability and minimize the potential for liquefaction to cause any slump or failure of the embankment. DSOD requirements for siting, engineering, construction, and monitoring of dams are continually improved as knowledge increases as to how and why dams fail. Therefore, the potential for catastrophic failure of either dam would be considered low and any subsequent potential impacts would be considered less than significant. Given the unlikely nature of dam failure and the regulatory oversight by DSOD,

the impact of flooding as a result of the failure of a dam or levee is considered to be less than significant.

**e. Less than Significant Impact**

**Construction**

Construction-related activities involving soil disturbance, such as grading, excavation, cut and fill, stockpiling of soils, and dewatering, could result in erosion, siltation, and/or delivery of sediments to surface waters. If precautions are not taken to contain contaminants, construction could contribute to water quality degradation including stormwater run-off, a form of nonpoint-source pollution. In addition, as construction equipment would require the use of fuels, lubricants, and other hazardous materials, if these materials are stored improperly during Project construction, water quality violations could occur.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 1.3.A, Stormwater Pollution Prevention Plan, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements which requires the contractor to prepare a SWPPP. The SWPPP requires qualified professionals (as described in the terms of the permit) to prepare and certify all permit-required document submittals, to implement effective stormwater and non-stormwater management practices, and conduct inspections and monitoring as required by the permit. The SWPPP must be reviewed and approved by EBMUD before the start of construction, and requires the contractor to control discharge of soil, sediment, and concrete residue and control pH and chlorine residual of any discharges.

With implementation of the requirements specified in EBMUD Standard Construction Specifications Section 01 35 44, Environmental Requirements, including Section 1.3.A, Stormwater Pollution Prevention Plan, which requires the contractor to prepare a SWPPP that would prevent the discharge of contaminated stormwater runoff from the Project site through controls such as dechlorination tablets, rock filter bags and drain inlet protection, construction of the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan resulting in a less than significant impact. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**

As described under (a) and (b), once operational, the Project would incorporate Provision C.3 in the MRP for Contra Costa County by directing stormwater runoff from the impervious surfaces to the stormwater detention basins, landscaped areas, and paved gravel areas onsite to the fullest extent possible to maximize stormwater treatment and stormwater recharge of soils. Thus, the Project would be consistent with the San Francisco Bay Region's Water Quality Control Plan and East Bay Plain Subbasin Sustainable Groundwater Management Plan objectives. Therefore, the Project would not conflict with or obstruct implementation of a Water Quality Control Plan or Sustainable Groundwater Management Plan, and impacts would be less than significant.

## REFERENCES

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California Regional Water Quality Control Board. (2015, March 20) *San Francisco Bay Region, Water Quality Control Plan for the San Francisco Bay Basin.*

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EBMUD. (2018, March 2). Standard Construction Specification. *Section 01 35 44, Environmental Requirements.*

EBMUD. (2010, October). Environmental Compliance Manual. *Section 3.0, Water Quality Protection.*

EBMUD. (2018, February 20). *Engineering Standard Practice 550.1, Seismic Design Requirements.*

Federal Emergency Management Agency (FEMA). (2009, June 16). FEMA Map Service Center: Search by Address. *Flood Insurance Rate Map No. 0613C0466F*. Retrieved on April 14, 2021, from https://msc.fema.gov/portal/search#searchresultsanchor.

State Water Resources Control Board (SWRCB). (2010). 2010 Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report) — Statewide. Retrieved on April 14, 2021, from http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml.

### 3.4.11 Land Use and Planning

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

**DISCUSSION**

**a. No Impact**.

The Project would not physically divide an established community because construction of the new PP would be completed on a developed site owned by EBMUD and occupied by existing EBMUD facilities and a leased parking area also owned by EBMUD as detailed in the Project Description, the new storm drain pipeline construction would be completed underneath existing roadways, and the air valves construction is considered minor and routine work completed on existing roadways.

**b. Less than Significant Impact**.

Pursuant to California Government Code Section 53091(e), county and city zoning ordinances do not apply to the location or construction of facilities for the transmission of water. This MND does, however, consider resource policies in the zoning ordinances and general plans for the city in corresponding MND sections (e.g., Noise, Biological Resources). The Project site is designated as "Commercial, Mixed Used" and is zoned CMU in the San Pablo Zoning Map (City of San Pablo, 2018). San Pablo's zoning ordinance identifies publicly owned structures as allowable uses within the zoning district.

The Project would occupy a parking area that is owned by EBMUD and leased to Kona Apartments. The leased parking area was not shown in the original site plan for Kona Apartments when it was approved in 1971, and there are no documents tying the leased parking to the Kona Apartments, so converting this area to a different use would not create a zoning violation.

The Project would require an encroachment permit for construction within city streets and sidewalks, pursuant to Section 12.08.440 of the San Pablo Municipal Code. EBMUD would prepare and submit to the Public Works Department for review and approval an encroachment permit application. The City's General Plan goals, policies and objectives related to land use and applicable to the Project are listed below.

- Policy LU-G-1: Promote a sustainable, balanced land use pattern that responds to

existing and future needs of the city, as well as physical and natural constraints.

- Policy LU-G-2: Ensure planned land uses are compatible with existing uses and provide for appropriate transitions or buffers for new uses, as needed

The new PP would replace an existing portable facility and improve water supply reliability for existing and projected future customer demands enabling EBMUD to maintain a high level of service in the area, consistent with Policy LU-G-1. All above-ground facilities would be located on the Project site and would be consistent with the existing use of the site. The proposed facilities would not result in changes to land uses in the Project area, and therefore would be compatible with existing uses, consistent with Policy LU-G-2. For these reasons, and through adherence to the provisions of the municipal code, the Project would not obviously conflict with applicable land use policies and regulation, therefore the impact is considered to be less than significant.

## REFERENCES

City of San Pablo. (2018). *San Pablo Zoning Map.*

City of San Pablo. (2011, April). *San Pablo General Plan 2030.*

City of San Pablo. (2020, December). *San Pablo Municipal Code*.

### 3.4.12 Mineral Resources

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

## DISCUSSION

### a. and b. No Impact.

The Project is located in an urban/suburban environment. There are no mineral resources within the Project area (City of San Pablo, 2011). Therefore, there would be no impact to mineral resources.

## REFERENCES

City of San Pablo. (2011, April). *San Pablo General Plan 2030.*

## 3.4.13 Noise

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

**DISCUSSION**

The noise impact analysis is based upon the Wildcat Pumping Plant Project Noise Technical Report (Panorama, 2021). The analysis provides an evaluation of the potential significance of noise- and vibration-related impacts that would result from the Project at sensitive receptors near the Project site and the new storm drain pipeline alignment.

The new and replacement air valves would be installed entirely within existing paved roadways or developed sites that experience regular traffic related noise. Furthermore, installation of air valves is a small-scale construction activity that is part of EBMUD's routine maintenance; therefore, the air valves will not be discussed in the analysis below.

**a. Less than Significant Impact.**

Noise Background, Terminology

Noise can be generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Human response to noise varies considerably from one individual to another. The effects of noise can include interference with sleep, concentration, and communication; physiological and psychological stress; and hearing loss. Given these noise effects, some land uses are considered more sensitive to noise levels than others. In general, residences, schools, hospitals, and nursing homes are considered the most sensitive to noise and are considered sensitive noise receptors.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000

Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements.

To describe the time-varying character of environmental noise, the statistical noise descriptors, $L_{01}$, $L_{10}$, $L_{50}$, and $L_{90}$, are commonly used, which correspond to the A-weighted noise levels equaled or exceeded during one percent, 10 percent, 50 percent, and 90 percent of a specified time period, respectively. A single number descriptor called the $L_{eq}$ is also widely used. The $L_{eq}$ is the average A-weighted noise level during a specified period of time and will be the primary descriptor used in the analysis. $L_{max}$ and $L_{min}$ will also be used, which represent the maximum and minimum A-weighted noise level during the measurement period, respectively.

Sensitivity to noise increases during the evening and at night because excessive noise interferes with the ability to sleep; therefore, 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Day/Night Average Sound Level* (*$L_{dn}$*) is a measure of the cumulative noise exposure in a community, with a 10 dB addition to nocturnal (10:00 p.m. - 7:00 a.m.) noise levels. The analysis below is compared to ambient noise levels using $L_{dn}$ because the San Pablo General Plan roadway noise contour map provides ambient noise levels in $L_{dn}$[8] for areas throughout the city. A roadway noise contour map provides predicted noise levels along major traffic thoroughfares such as state and interstate freeways in the form of a line on a map that represents equal levels of noise exposure.

The noise impact analysis and significance determination are based on the San Pablo General Plan, San Pablo Municipal Code, and San Pablo Zoning Ordinance. The San Pablo General Plan identifies noise levels compatible with community land uses, as shown in Table 3.4.13-1. The San Pablo Municipal Code specifically prohibits all noise operations between 10 p.m. and 7 a.m., unless under emergency conditions. It also contains specific noise prohibitions, regulating noise from heavy equipment within the city. The San Pablo Zoning Ordinance identifies maximum allowable noise limits in residential zones, as shown in Table 3.4.13-2.

[8] In general, $L_{dn}$ is equivalent to $L_{eq}(24)$ with a 10 dB penalty applied to nighttime hours (between 10:00 p.m. and 7:00 a.m.). However, if a project does not generate nighttime noise between 10:00 p.m. and 7:00 a.m., no 10-dB penalty is applied and $L_{dn}$ is directly equivalent to $L_{eq}(24)$.

## Table 3.4.13-1 Land Use Compatibility for Community Noise Environments

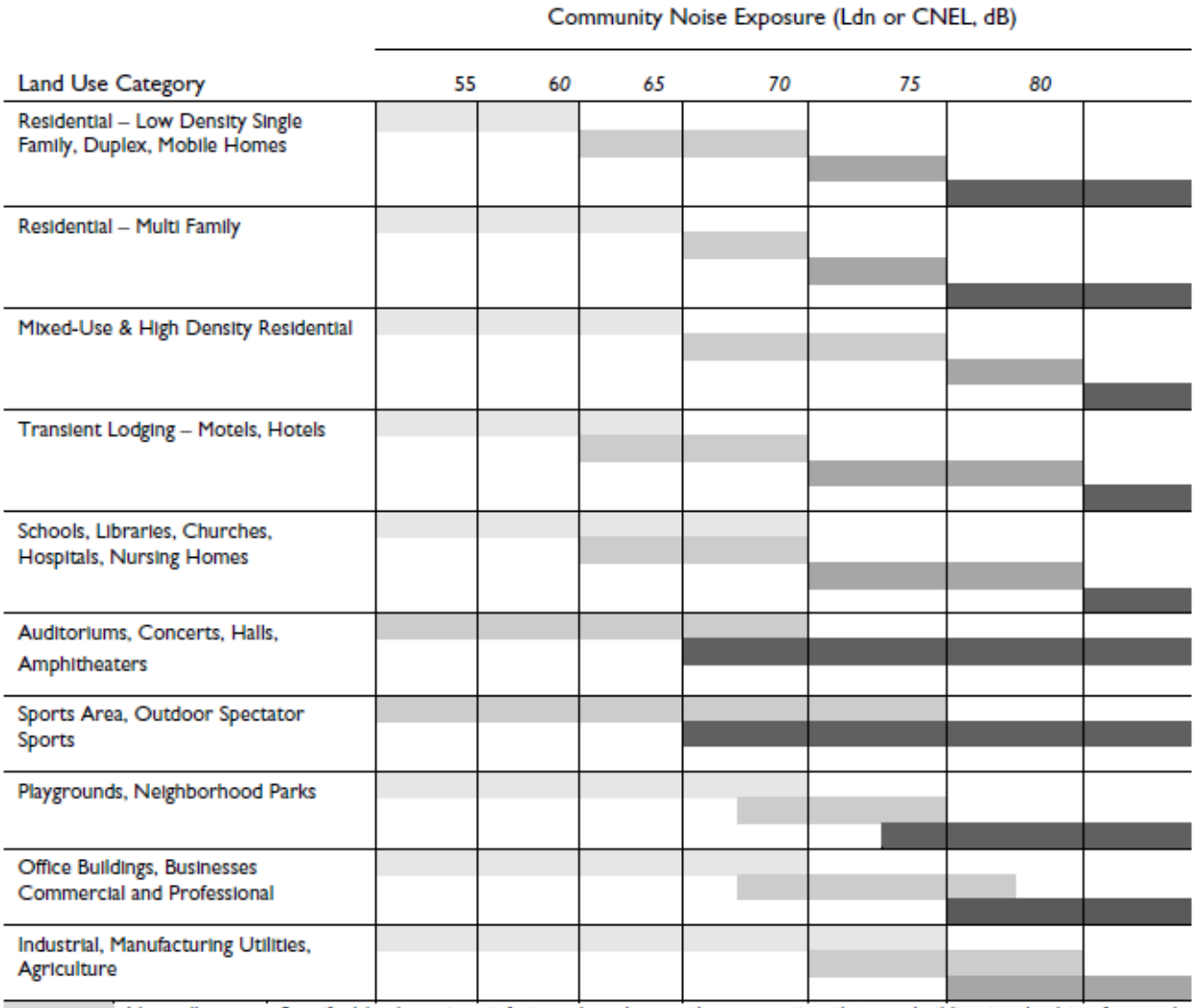

**Table 3.4.13-2 San Pablo Zoning Ordinance Residential Noise Limits**

| Location of Measurement | Maximum Noise Level | |
|---|---|---|
| | 10 p.m. to 7 a.m. | 7 a.m. to 10 p.m. |
| Exterior | 60 dBA | 65 dBA |
| Interior | 45 dBA | 50 dBA |

Notes:

1. It shall be unlawful for any person at any location within the city to create any noise or to allow the creation of any noise which causes the noise level when measured within any other fully enclosed (windows and doors shut) residential dwelling unit to exceed the interior noise standard in the manner described herein.
2. If the intruding noise source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient noise level can be determined, each of the noise limits above shall be reduced 5 dBA for noise consisting of impulse or simple tone noise.
3. Noise. Any proposed new housing exposed to Day-Night Sound Level (DNL) noise levels above 65 dB are subject to the San Pablo General Plan standards for noise reduction (Chapter 9, Policy SN-I-40), which include acoustical design requirements that achieve the prescribed noise level reduction. Applicants must provide the necessary noise level reduction prepared by a board-certified acoustical engineer for each unit.

San Pablo General Plan policies also require contractors to use best available control technology (e.g., noise attenuation fences, mufflers, and engine shrouds) to reduce the amount of noise generated. Similarly, EBMUD incorporates Standard Construction Specifications and Procedures into all its projects. Project-related construction activities that generate noise levels in exceedance of the city's noise limits would incorporate applicable EBMUD Standard Construction Specifications and Procedures to ensure that construction noise has been reduced to the maximum extent feasible.

Consistent with the noise impact statements included in the CEQA Guidelines Appendix G checklist, a significant impact would be identified under the following circumstances:

a. Temporary Construction Noise in Excess of Standards. Construction noise impacts would be considered significant if project construction conflicts with the requirements specified in the San Pablo Municipal Code.
b. Permanent Operational Noise in Excess of Standards. A significant impact would be identified if noise generated by new PP operational equipment were to exceed the land use compatibility noise levels presented for each land use type in 3.4.13-1 and the noise limits in the San Pablo Zoning Ordinance (as presented in Table 3.4.13-2).

**Construction**

Construction noise would be generated during construction activities associated with the Project, including construction of the new PP and storm drain pipeline. The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) (FHWA, 2008) was used to estimate the noise levels at the closest noise-sensitive receptors during each project sub-phase. Construction noise was modeled using the two dominant noise-emitting construction equipment operating during each Project sub-phase.[9] Individual equipment

[9] Combined noise levels produced by multiple noise sources are calculated using logarithmic summation. For example, if one noise source produces a noise level of 50 dBA, then two of the identical sources side by side would

proposed for construction of the Project are anticipated to generate noise levels ranging from 50 to 83 dBA $L_{eq}$ and 58 to 90 dBA $L_{max}$ at a distance of 50 feet from the source, as indicated in Table 3.4.13-3.

Variables that influence the noise levels at sensitive receptors include the type of construction equipment used, the timing and duration of noise-generating activities, the distance between construction noise sources and sensitive receptors, any shielding provided by intervening structures or terrain, ambient noise levels, and use of noise source controls.

Noise specialist staff from Panorama Environmental, Inc. conducted site visits on February 17 and March 4, 2021. During the site visits, on-site conditions were verified, noise levels generated by existing nearby noise sources and equipment were monitored, and site-specific ambient noise data was independently developed to verify the current accuracy of the ambient noise data from the San Pablo General Plan.

Due to the COVID-19 pandemic, traffic volumes in 2021 had significantly decreased, resulting in atypical and non-representative traffic noise levels in some areas. Prior to visiting the Project site, consideration was given as to whether the local noise levels measured during the Project site survey should be adjusted upwards to better approximate the higher noise levels (due to the higher traffic volumes) prior to shelter-in-place restrictions imposed in March 2020. Although Walter T. Helms Middle School was closed when the study was done, observations during the site visit indicated that all local business in the El Portal Drive/Church Lane intersection vicinity were open and/or operational. Therefore, it is assumed that current noise conditions would not substantially differ from noise levels prior to shelter-in-place restrictions. To verify that measured noise levels were representative of noise levels prior to shelter-in-place restrictions, the measured noise levels were compared to the noise contours included in the San Pablo General Plan, which presents noise contours using $L_{dn}$. When the contour $L_{dn}$ were adjusted to the measured $L_{eq}$ based on the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment*, it was determined that the noise measurements at the Project site fell within the same 65 to 70 dBA $L_{dn}$ range as presented for El Portal Drive and Church Lane in the San Pablo General Plan contour maps, confirming that measured noise levels are representative of typical noise levels. Therefore, noise modeling to account for typical traffic volumes was not warranted for the purposes of the analysis.

generate a combined noise level of 53 dBA, or an increase of only 3 dBA. Equation: $10\ Log_{10}\ (10^{5.0}+10^{5.0}) = 53$ dBA

**Table 3.4.13-3 Construction Equipment 50-foot Noise Emission Levels (dBA)**

| Equipment Category | Leq[1,2,3] | Lmax[1,2] | Equipment Category | Leq[1,2,3] | Lmax[1,2] |
|---|---|---|---|---|---|
| Backhoe | 74 | 78 | Excavator | 77 | 81 |
| Boom Truck | 74 | 81 | Flatbed Truck (On-Site) | 70 | 74 |
| Chainsaw | 77 | 84 | Fork Lift | 68 | 75 |
| Compactor (Plate) | 76 | 83 | Dump Truck (On-Site) | 73 | 77 |
| Compactor (Roller) | 73 | 80 | Generator | 78 | 81 |
| Compressor | 74 | 78 | High Density Poly Ethylene Fusion Machine | 50 | 58 |
| Concrete Mixer Truck | 75 | 79 | Paving - Asphalt (Paver, Dump Truck) | 74 | 77 |
| Concrete Pump Truck | 74 | 81 | Pump | 78 | 81 |
| Concrete Saw [4] | 83 | 90 | Street Sweeper | 72 | 82 |
| Crane | 73 | 81 | Welding Machine | 70 | 74 |
| Drill Rig | 76 | 79 | | | |

[1] Measured at 50 feet from the construction equipment.

[2] Lmax noise levels apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation. $L_{eq}$ noise levels also consider the duration of an overall time period that the equipment is operating at full power, also known as the "usage factor".

[3] Noise levels assume that all construction equipment is equipped with noise control devices (e.g., mufflers) by the manufacturer; therefore, the noise levels presented in this table include attenuation from these noise control devices.

[4] Noise control devices are not currently available for concrete saws.

New PP Construction

The RCNM noise model was used to estimate the worst-case project construction noise levels for each PP construction sub-phase, as shown in Table 3.4.13-4.

The unshielded modeled construction noise levels for nearly all PP construction sub-phases exceeded ambient noise levels at the nearest residences and Walter T. Helms Middle School. Noise levels would be reduced or influenced due to various existing design features associated with nearby receptors. These design features include the presence of an approximately 6-foot-tall concrete perimeter walls along the perimeter of receptor property lines that face the Project site at the Rancho San Pablo residential complex, Abella residential complex, and Walter T. Helms Middle School. The presence of these walls would reduce construction noise to these receptors by up to 8 dBA. Additionally, the absence of windows for sensitive interior residential spaces (e.g., bedrooms and main living areas) facing the Project site, including at Kona Apartments, would reduce interior noise levels and impacts to residents during construction. Furthermore, the administrative and classroom buildings at the Walter T. Helms Middle School and residential properties across El Portal Drive and Road 20 have relatively distant setbacks from the Project site, which would attenuate construction noise generated at the Project site. Busy roadways immediately adjacent to the Project site, including Road 20, El Portal Drive, and Church Lane, also have relatively high ambient noise from existing traffic, which help to offset an increase in the noise environment from construction. These factors are discussed as they relate to the nearest sensitive receptors below.

The sensitive receptor that would experience the highest levels of construction noise would be the Kona Apartments, located immediately adjacent to the southern boundary of the Project site. Construction noise levels at the apartment complex are anticipated to range from approximately 62.6 to 78.1 dBA $L_{eq}$ during construction of the PP. The loudest noise would occur during the civil site work phase, when noise levels are anticipated to reach approximately 78.1 dBA $L_{eq}$ and 84.6 dBA $L_{Max}$.

Daytime ambient noise measurements collected at various locations around the Kona Apartments range from approximately 55.4 dBA to 68.8 dBA (Table 3.4.13-4). Construction of the PP would occur during daytime construction hours and would result in a temporary noise increase of up to 9.3 dBA $L_{eq}$ during the approximate 69-week construction period. Construction would not occur at night or on weekends or holidays when nearby residents are anticipated to be most sensitive to noise. As such, the impact of construction noise on residential receptors would be less than significant.

Walter T. Helms Middle School would experience elevated noise levels during construction; however, noise levels at the middle school would not reach levels at the Kona Apartments due to an existing concrete wall that occurs along the eastern perimeter of the school. Additionally, administrative and instructional buildings are located approximately 150 feet from the PP site and are blocked by a multipurpose building located 50 feet west of the Project site. The distance and intervening structures provide greater noise attenuation for the administrative and instructional buildings. Construction noise at the school is anticipated to

range from approximately 50.6 to 60.1 dBA $L_{eq}$, with the loudest noise from PP construction occurring during the civil site work phase when noise levels would reach approximately 60.1 dBA $L_{eq}$ and 66.6 dBA $L_{Max}$ at the school. Ambient noise levels at the school are anticipated to be greatly influenced by traffic along Road 20. Ambient noise along Road 20 and El Portal Drive at the PP site was measured to be 67.1 dBA $L_{eq}$ at a distance of 15 feet from the curb of the road. Construction noise levels would be similar to existing traffic noise and would not substantially raise noise levels at the school administrative or instructional buildings. Furthermore, construction of the Project would occur during the allowable construction noise hours established by the San Pablo General Plan and San Pablo Municipal Code. The impact from construction noise on the school would be less than significant.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 3.7, Noise Control, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, which includes use of equipment mufflers or other noise source controls and requires EBMUD and its Contractor to notify residents within 300 feet of Project construction in advance of extreme noise-generating activity, thereby allowing residents to plan for construction activities and elevated noise levels. Additionally, EBMUD Procedure 600 requires notification of residents 7 to 14 days in advance of potentially disruptive construction activities (e.g., noise, traffic) including geographical extent of activity and estimated duration of the activity. EBMUD Standard Construction Specification 01 14 00, Work Restrictions, limits extreme noise-generating construction (i.e., greater than 90 dBA) to the hours of 8:00 a.m. to 4:00 p.m. to avoid the evening, nighttime, and early morning hours when people are most sensitive to noise. Furthermore, as part of EBMUD's Procedure 600, Public Outreach and Community Relations, EBMUD would designate a Public Affairs liaison to respond to construction-related concerns, including noise levels, from the community. The Public Affairs liaison would be able to coordinate with the EBMUD Project team and Contractor to resolve community concerns, including those related to construction noise.

With implementation of the EBMUD Standard Construction Specifications discussed above, EBMUD would implement all feasible noise control requirements to reduce construction noise levels, notify residents of potentially disruptive construction activities, and designate a Public Affairs liaison to respond to construction-related concerns, including noise levels from the community. Further, construction of the PP is not expected to substantially increase existing noise levels and construction activities would occur on weekdays during daytime hours, in accordance with the San Pablo General Plan and San Pablo Municipal Code. Therefore, the impact from noise due to the construction of the PP would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

New Storm Drain Pipeline Construction

The RCNM noise model was used to estimate the worst-case project construction noise levels for each storm drain pipeline construction sub-phase, as shown in Table 3.4.13-5.

Although storm drain pipeline construction would occur closest to the Abella residential complex north of Road 20, the southern perimeter of the complex is lined with a 6-foot-tall concrete wall, separating it from the storm drain pipeline alignment. The presence of the existing wall would attenuate noise levels experienced by residents within this complex by approximately 8 dBA. Construction noise would be the loudest at Walter T. Helms Middle School, which would have a direct line-of-sight to the storm drain pipeline construction. Daytime ambient noise levels were measured as 67.1 dBA $L_{eq}$ near the Road 20/El Portal Drive intersection. The San Pablo General Plan identifies ambient noise from traffic on Road 20 as approximately 60 dBA $L_{dn}$, or 62 dBA $L_{eq}$ (peak hour). Construction noise levels are anticipated to range from approximately 60.6 to 77.1 dBA $L_{eq}$ during construction of storm drain pipeline with the loudest noise generated during use of a concrete saw, which is anticipated to require a total of two days for the entire 725-foot alignment of the storm drain pipeline. Concrete saw cutting would generate noise levels of approximately 77.1 dBA $L_{eq}$ and 83.6 dBA $L_{Max}$ at the external walls of school buildings. As such, construction of the storm drain pipeline would increase noise levels in the Project vicinity by more than 10 dBA during concrete saw cutting. Noise from the remaining construction phases would increase noise in the vicinity of Road 20 by an average of 5.3 dBA for approximately three weeks. Construction of the storm drain pipeline would not generate noise along the entire alignment for the full three-week construction duration. Rather, construction would move along the alignment, completing approximately 80 to 200 feet of pipeline construction per day. Construction of the storm drain pipeline would increase noise levels at the school; however, these construction activities are scheduled to occur during the summer when school is not in session and the majority of school staff and students are not on campus. As such, summer construction is not anticipated to affect students or classroom learning; however, school staff may be present on campus for other administrative duties during summer construction activities. Construction activities would occur on weekdays during daytime hours, in accordance with the San Pablo General Plan and San Pablo Municipal Code. Therefore, the construction noise impact on the school would be less than significant.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 3.7, Noise Control, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, which includes use of equipment mufflers or other noise source controls.

With implementation of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, which requires the use of equipment mufflers or other noise source controls, and because construction would occur in the summer and during allowable construction noise hours established by the San Pablo General Plan and San Pablo Municipal Code, the impact from noise due to the construction of the new storm drain pipeline would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Table 3.4.13-4 Modeled Noise Impacts Associated with Pumping Plant Construction**

| Construction Phase | Approx. Duration | Dominant Noise-Generating Equipment | Closest Sensitive Receptor | Average Distance (feet) [a] | Construction Noise Level (dBA) (Unshielded) | | Construction Noise Level (dBA) (Shielded) [b] | |
|---|---|---|---|---|---|---|---|---|
| | | | | | $L_{eq}$ | $L_{max}$ | $L_{eq}$ | $L_{max}$ |
| Mobilization | 1 week | Backhoe | Residential (Kona Apt) | 100 | 67.6 | 71.5 | 67.6 | 71.5 |
| | | | School (Helms) | 100 | 67.6 | 71.5 | 59.6 | 63.5 |
| Site Preparation (during tree removal) | 1-2 days | Backhoe, Chain Saw | Residential (Kona Apt) | 100 | 72.4 | 77.7 | 72.4 | 77.7 |
| | | | School (Helms) | 100 | 72.4 | 77.7 | 64.4 | 69.7 |
| Site Preparation (at all other times) | 1 week | Backhoe | Residential (Kona Apt) | 100 | 67.6 | 71.5 | 67.6 | 71.5 |
| | | | School (Helms) | 100 | 67.6 | 71.5 | 59.6 | 63.5 |
| Initial Excavation and Grading | 2 weeks | Backhoe, Excavator | Residential (Kona Apt) | 100 | 72.4 | 74.7 | 72.4 | 74.7 |
| | | | School (Helms) | 100 | 72.4 | 74.7 | 64.4 | 66.7 |
| Construction (during concrete work) | 26 weeks | Concrete Mixer Truck, Concrete Pump Truck | Residential (Kona Apt) | 50 | 77.6 | 81.4 | 77.6 | 81.4 |
| | | | School (Helms) | 100 | 71.6 | 75.4 | 63.6 | 67.4 |
| Construction (during pump installation) | 19 weeks | Crane, Material Truck | Residential (Kona Apt) | 50 | 74.6 | 80.6 | 74.6 | 80.6 |
| | | | School (Helms) | 100 | 68.6 | 74.5 | 60.6 | 66.5 |
| Construction (suction and discharge pipelines) | 2 weeks | Excavator, Generator | Residential (Rancho San Pablo) | 150 | 70.7 | 71.2 | 62.7 | 63.2 |
| | | | School (Helms) | 100 | 74.2 | 74.7 | 66.2 | 66.7 |
| Equipment Testing | 10 weeks | N/A | -- | -- | -- | -- | -- | -- |
| On-Site Drainage | 1 week | Backhoe, Material Truck | Residential (Kona Apt) | 100 | 70.1 | 71.5 | 70.1 | 71.5 |
| | | | School (Helms) | 100 | 70.1 | 71.5 | 70.1 | 71.5 |
| Civil Site Work: CMU wall, Fence, Driveway, and Landscaping (during pavement sawing) | 1-2 days | Backhoe, Concrete Saw | Residential (Kona Apt) | 50 | 83.1 | 89.6 | 83.1 | 89.6 |
| | | | School (Helms) | 100 | 77.1 | 83.6 | 69.1 | 75.6 |
| Civil Site Work: CMU wall, Fence, Driveway, and Landscaping (at all other times) | 2 weeks | Backhoe, Concrete Mixer Truck | Residential (Kona Apt) | 50 | 77.3 | 78.8 | 77.3 | 77.8 |

[a] Represents the distance from the center of the Project site to the nearest point of the closest sensitive receptor.

[b] Existing 6-foot concrete walls along the east side of Walter T. Helms Middle School, El Portal Drive (Rancho San Pablo Residential Complex), Road 20 (Abella Residential Complex) provide approximately 8 dBA reduction.

**Table 3.4.13-5 Modeled Noise Impacts Associated with Storm Drain Pipeline Construction**

| Construction Phase | Approx. Duration [a] | Dominant Noise-Generating Equipment | Closest Sensitive Receptor | Average Distance (feet) [b] | Construction Noise Level (dBA) (Unshielded) [c] | | Construction Noise Level (dBA) (Shielded) [c d] | |
|---|---|---|---|---|---|---|---|---|
| | | | | | $L_{eq}$ | $L_{max}$ | $L_{eq}$ | $L_{max}$ |
| Road 20 Storm Drain Pipeline Installation (during pavement sawing) | 1-2 days | Backhoe, Concrete Saw | Residential (Abella) | 60 | 81.5 | 83.4 | 73.5 | 75.4 |
| | | | School (Helms) | 100 | 77.1 | 83.6 | 77.1 | 83.6 |
| Road 20 Storm Drain Pipeline Installation (during drain installation) | 2 weeks | Backhoe, Excavator, Material Truck | Residential (Abella) | 60 | 77.8 | 79.1 | 69.8 | 71.1 |
| | | | School (Helms) | 100 | 73.4 | 74.7 | 73.4 | 74.7 |
| Road 20 Storm Drain Pipeline Installation (during final grading, backfill, and paving) | 2 weeks | Asphalt Paver, Compactor (Roller), Material Truck | Residential (Abella) | 60 | 76.4 | 78.4 | 68.4 | 70.4 |
| | | | School (Helms) | 100 | 72.0 | 74.0 | 72.0 | 74.0 |
| Demobilization | 1 week | Street Sweeper | Residential (Abella) | 60 | 68.1 | 81.0 | 60.1 | 73.0 |
| | | | School (Helms) | 100 | 65.6 | 75.6 | 65.6 | 75.6 |

[a] Storm drain pipeline construction moves along the alignment, with approximately 80 to 200 feet of pipeline constructed in a day, including the excavation, installation, grading, backfilling, and paving occurring daily for each segment. The total duration of storm drain pipeline construction is anticipated to be approximately 3 weeks.

[b] Represents the distance from a moving center of the storm drain pipeline alignment to the closest sensitive receptor. Residences are, on average, approximately 60 feet from the storm drain pipeline alignment. Helms Middle School administration and instruction buildings are approximately 100 feet from the storm drain pipeline alignment.

[c] Noise levels are calculated to describe worst-case noise scenarios when construction equipment is operating along a center point along the pipeline alignment directly in front of the receptor.

[d] Existing 6-foot-tall concrete walls along El Portal Drive (Rancho San Pablo Residential Complex) and Road 20 (Abella Residential Complex) provide a reduction of approximately 8 dBA.

**Operation**
The new PP would include four 300-horsepower variable frequency drive pumps, located inside a new building and an outdoor electrical transformer, both of which would generate operational noise.

The specific pump manufacturer and models have not been identified; therefore, the analysis below is based on noise data collected from pumps with similar power and speed ratings. Each pump is expected to produce a sound level of approximately 86 dBA at 3 feet in a non-reverberant, open air, environment (Hoover & Keith, 1996). The pumps at the new PP would be located inside a new building. Based on the consideration of a typical reverberant noise buildup within the PP building interior, the calculated sound level for one pump operating within the PP is approximately 90 dBA at 3 feet and approximately 88 dBA at the inside face of the building perimeter. Although the PP would be equipped with four pumps, only three pumps would be in simultaneous operation at any given time, with the fourth pump only used as backup. The simultaneous operation of three pumps would result in a total noise level of approximately 92.8 dBA at the inside face of the PP building perimeter. Considering these interior levels, the noise level for three pumps operating inside of the enclosed PP would be approximately 57.8 dBA at a distance of 50 feet from the building on the side with an open (non-acoustically rated) louver, and approximately 27.8 dBA $L_{eq}$ at a distance of 50 feet on the side of the building without any openings.

The PP building design includes acoustical louvers on the eastern and western walls of the PP. No louvers or doors would be constructed on the southern wall of the PP building, which faces the Kona Apartment complex. Noise from the pumps inside the enclosed PP would be approximately 26.2 dBA $L_{dn}$ at the Kona Apartments, when considering the 8-dBA reduction from the 8-foot-tall CMU wall to be constructed at the southern boundary of the Project site.

The San Pablo General Plan identifies noise sources of up to 65 dBA $L_{dn}$ as "Normally Acceptable" in multifamily residential areas and up to 70 dBA $L_{dn}$ for schools. The San Pablo Zoning Ordinance has an established noise limit of 65 dBA for daytime noise and 60 dBA for nighttime noise in residential zones. The San Pablo Zoning Ordinance does not establish noise limits for schools. The San Pablo General Plan also identifies ambient noise levels in the vicinity of El Portal Drive to be approximately 65 to 70 dBA $L_{dn}$, which was verified to be accurate based on noise measurement data in the vicinity. Therefore, existing ambient noise levels at this residential land use has reached (if not exceeded) the maximum daytime residential noise limit of 65 dBA, as established by the San Pablo Zoning Ordinance. The minimal noise generated by operation of the new PP would be offset by the existing ambient noise levels and would not increase noise levels above noise limits set forth by the San Pablo General Plan or the San Pablo Zoning Ordinance. The noise impact from operation of the PP would be less than significant.

**b. Less than Significant Impact.**

Vibration Background and Terminology

Vibrations caused by construction activities can be interpreted as energy transmitted in waves through the soil mass. The energy waves generally dissipate with distance from the vibration source (e.g., pile driving or sheet pile driving). Since energy is lost during the transfer of energy from one particle to another, vibration that is distant from a source is usually less perceptible than vibration closer to the source. However, actual human and structure response to different vibration levels is influenced by a combination of factors, including soil type, distance between source and receptor, duration, and the number of perceived events.

If great enough, the energy transmitted through the ground as vibration can cause structural damage. To assess the potential for structural damage associated with vibration, the vibratory ground motion in the vicinity of the affected structure is measured in terms of peak particle velocity (PPV) in the vertical and horizontal directions (vector sum), typically in units of inches per second (in/sec). For comparison, a freight train passing at 100-feet can cause vibrations of 0.1-in/sec PPV, while a strong earthquake can produce vibration in the range of 10-in/sec PPV. Minor cosmetic damage to buildings can occur at vibration levels as low as 0.5-in/sec PPV for single-event sources (Federal Transit Administration, 2018).

Established Vibration Standards
The City of San Pablo does not establish a vibration limit for construction. Caltrans recommends the following vibration limits to avoid cosmetic damage to structures:

- 0.25 in/sec PPV for historic structures
- 0.5 in/sec PPV for new residential and modern commercial/industrial structures

Potential construction-related vibration impacts at structures near each Project site area were analyzed using the Caltrans recommended limits. A significant impact would occur if the groundborne vibration levels from construction exceed 0.25 in/sec PPV at historic structures and/or 0.5 in/sec PPV at new residential or modern commercial/industrial structures.

**Construction**
Construction activities often generate perceptible vibration and levels that could affect nearby structures when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used in the vicinity of nearby sensitive land uses. Building damage generally falls into three categories:

1. Cosmetic damage (also known as threshold damage) is defined as hairline cracking in plaster, the opening of old cracks, the loosening of paint or the dislodging of loose objects.
2. Minor damage is defined as hairline cracking in masonry or the loosening of plaster.
3. Major structural damage is defined as wide cracking or the shifting of foundation or bearing walls.

The Kona Apartments are located approximately 18 feet from the new PP building. Construction of the bioretention planters and CMU wall would occur approximately 5 feet from the apartment building. Table 3.4.13-6 presents construction vibration levels at a

reference distance of 25 feet and at various distances from a variety of vibration-inducing heavy construction equipment. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Vibration levels are highest closest to the source, and then attenuate with increasing distance at the rate $(D_{ref}/D)^{1.1}$, where D is the distance from the source in feet and $D_{ref}$ is the reference distance of 25 feet.

Construction vibration would be anticipated to exceed the threshold for cosmetic damage to normal conventional construction (0.5 in/sec PPV) or a historic structure (0.25 in/sec PPV) if project construction would require the use of a clam shovel or vibratory roller within 12 feet or 21 feet, respectively, of the nearby structure. All other project construction equipment would be anticipated to generate vibration levels below the cosmetic damage thresholds. No historic structures are located within 21 feet of the Project site; therefore, no impacts resulting from groundborne vibration would occur to historic structures.

**Table 3.4.13-6 Vibration Levels for Construction Equipment at Various Distances**

| Equipment | | PPV (in/sec) at Given Distance | | | | |
|---|---|---|---|---|---|---|
| | | 12 feet | 20 feet | 25 feet | 50 feet | 70 feet |
| Clam Shovel Drop | | 0.453 | 0.258 | 0.202 | 0.094 | 0.065 |
| Hydromill (Slurry Wall) | In soil | 0.018 | 0.010 | 0.008 | 0.004 | 0.003 |
| | In rock | 0.038 | 0.022 | 0.017 | 0.008 | 0.005 |
| Vibratory Roller | | 0.471 | 0.268 | 0.210 | 0.098 | 0.068 |
| Hoe Ram | | 0.200 | 0.114 | 0.089 | 0.042 | 0.029 |
| Large bulldozer | | 0.200 | 0.114 | 0.089 | 0.042 | 0.029 |
| Caisson drilling | | 0.200 | 0.114 | 0.089 | 0.042 | 0.029 |
| Loaded trucks | | 0.170 | 0.097 | 0.076 | 0.035 | 0.024 |
| Jackhammer | | 0.078 | 0.045 | 0.035 | 0.016 | 0.011 |
| Small bulldozer | | 0.007 | 0.004 | 0.003 | 0.001 | 0.001 |

Source: (Federal Transit Administration, 2018) modified by Illingworth & Rodkin, Inc., August 2020.

Construction of the new PP and storm drain pipeline construction would not require the use of a clam shovel drop. Vibratory rollers may be used for compacting soils during construction of the new PP and storm drain pipeline. The Kona Apartment complex could be damaged if use of a vibratory roller occurred within 12 feet of the building. However, a vibratory roller would not be used during construction of the CMU wall or bioretention plantings, or other activities within 12 feet of the apartment complex. Vibration levels would be lower as construction moves away from nearby structures or when lower-vibration construction equipment and methods are used. Therefore, the Project is not anticipated to generate vibration levels that would result in damage to nearby structures.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, would be incorporated as part of the Project, including Section 1.3.H, Vibration Control and Monitoring Plan, and Section 3.6, Vibration

Control, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements. Section 1.3.H, Vibration Control and Monitoring Plan, requires the preparation and implementation of a Vibration Control and Monitoring Plan that details the means and methods for controlling and monitoring surface vibration generated by demolition and other work, and Section 3.6, Vibration Control, limits surface vibration to no more than 0.5 in/sec PPV measured at the nearest residence or other sensitive structure.

With implementation of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, including Section 1.3.H, Vibration Control and Monitoring Plan, and Section 3.6, Vibration Control, which require preparing and implementing a Vibration Control and Monitoring Plan and limiting surface vibration to no more than 0.5 in/sec PPV, and because there are no historic structures located near the Project sites subject to the 0.25 in/sec PPV construction vibration threshold, vibration impacts would result in a less than significant impact. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**
Operational equipment is not anticipated to generate perceptible levels of vibration off-site resulting in a less than significant impact.

**c. No Impact.**

The Project is not located within the vicinity of a private airstrip or a public airport and would not expose people residing or working in the Project area to excessive aircraft noise levels, resulting in no impact.

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## 3.4.14 Population and Housing

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

**DISCUSSION**

**a. No Impact.**

The Project would not induce population growth by making additional water supply available for new development. The Project replaces existing facilities to improve operational flexibility and reliability of the existing water distribution system for existing customers. The existing customers within the area served by the Project, and any future customers in that area that would benefit from the Project, are all within EBMUD's Ultimate Service Boundary, which is a defined service and growth boundary adopted by EBMUD for planning purposes. The Project is not extending infrastructure into a new area or creating momentum for unplanned new development.

**b. No Impact.**

No housing presently exists at the Project sites; therefore, the proposed Project would not displace people or housing.

## 3.4.15 Public Services

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

## DISCUSSION

### a. No Impact.

The Project replaces an existing portable pumping plant and constructs new storm drain pipeline and air valves. The Project would not generate a need for any new public facilities (schools, fire and/or police protection, parks, etc.), because it does not induce population and employment growth. Workers at the Project sites are likely to commute from the existing Bay Area labor supply. Any deterioration of existing public facilities resulting from construction (e.g., streets) would be restored by EBMUD to preconstruction condition upon completion of construction. There would be no impacts associated with new or physically altered governmental facilities.

## 3.4.16 Recreation

| Would the project: | 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? | ☐ | ☐ | ☐ | ☒ |

**DISCUSSION**

**a. No Impact.**

The Project would not generate or attract additional population, as would be associated with residential, commercial or industrial uses; therefore, it would not affect demand for recreational facilities.

**b. No Impact.**

The Project consists exclusively of water distribution system facilities and does not require the construction or expansion of recreational facilities.

## 3.4.17 Transportation

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

**DISCUSSION**

The transportation and traffic impact analysis is based upon the Wildcat Pumping Plant Project Transportation and Traffic Technical Report (Panorama, 2021) that includes the results of trip distribution estimates, data collection, and traffic impact analysis completed for the Project site and new storm drain pipeline alignment. The transportation and traffic impact analysis considers both operational and construction impacts associated with the proposed Project.

The transportation and traffic impact analysis for the Project conservatively focuses on maximum concurrent construction activities (i.e., new PP construction occurring simultaneously with new storm drain pipeline construction) on traffic because the period of maximum concurrent construction related traffic is most likely to trigger significant impacts and the need for mitigation. Other construction activities with less traffic would be expected to have less impact compared to the maximum construction traffic condition.

*Project Trip Generation*

Project trip generation estimates were calculated by using the largest number of hourly one-way worker and truck trips over the Project duration. Project trip generation reflects the period of maximum construction traffic impacts to traffic from worker vehicle trips during off-site storm drain installation on Road 20 and construction truck trips during the pumping plant suction and discharge pipeline phase.

All workers are assumed to arrive during the AM peak hour and to depart during PM peak hour. Peak hour traffic is the hour in which the four highest traffic volume 15-minute periods (consecutive) fall during the typical two-hour AM and PM commute periods. There is an AM and a PM peak hour. The AM (7:00 a.m. to 9:00 a.m.) and PM (4:00 p.m. to 6:00 p.m.) commute periods are generally considered the peak flow of traffic during the weekday periods. The maximum hourly one-way worker trips are 15 trips as shown in Table 3.4.17-1.

The truck trip estimates account for the maximum number of trucks going to and leaving the

Project site in one hour. The maximum hourly one-way truck trips are 6 trips during the pumping plant suction and discharge pipeline construction. The maximum hourly one-way truck trips are added to the AM and PM peak hour worker trips to get the maximum one-way hourly total (worker plus truck) trips. The Project trip generation estimates are summarized in Table 3.4.17-1.

**Table 3.4.17-1 Project One-Way Trip Generation Estimates**

| Trip Type | Average Daily Trips[a] | Maximum Daily Trips [a,d] | Average Hourly Trips [a] | Maximum Hourly Trips [a] |
|---|---|---|---|---|
| Workers [b] | 16 | 30 | 8 | 15 |
| Trucks [c] | 10 | 46 | 2 | 6 |
| **Total Trips** | **26** | **76** | **10** | **21** |

[a] Trips refer to the number of inbound and/or outbound trips expected to occur.

[b] Average and maximum one-way hourly worker trips from the Project Description, Table 2.1, Construction Activities Associated with the Project, are conservatively assumed to occur only during the AM and PM peak hour. Each worker would arrive during the AM peak hour and leave during the PM peak hour.

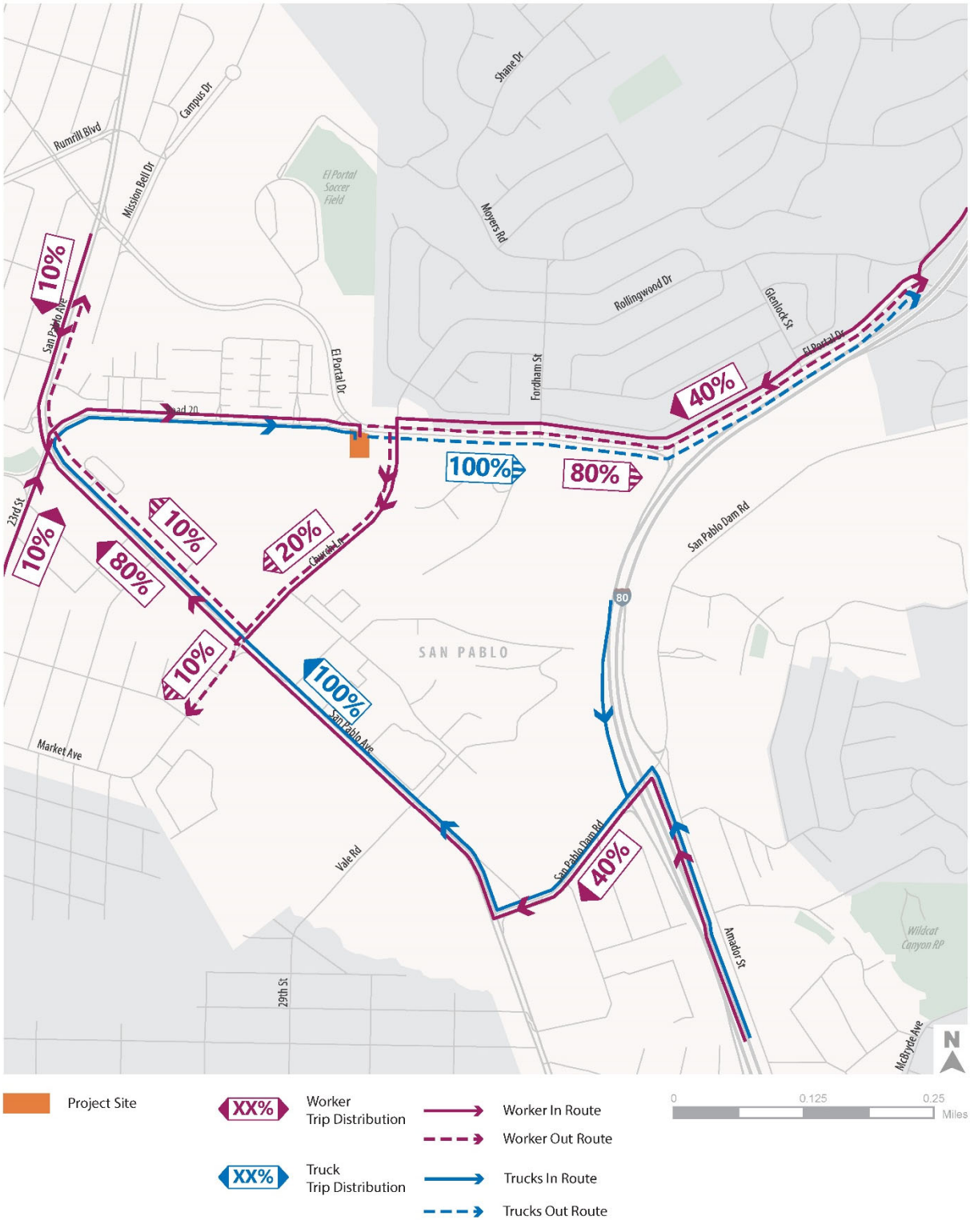
[c] Hourly one-way truck trips are calculated by averaging the daily trips over eight hours, rounded up to the nearest whole number.

[d] The maximum daily worker trips and maximum daily truck trips are expected to occur at separate phases of project construction. This analysis conservatively uses each separate daily trip maximum for workers and trucks, although both maximum volumes are not expected to occur concurrently in one single phase.

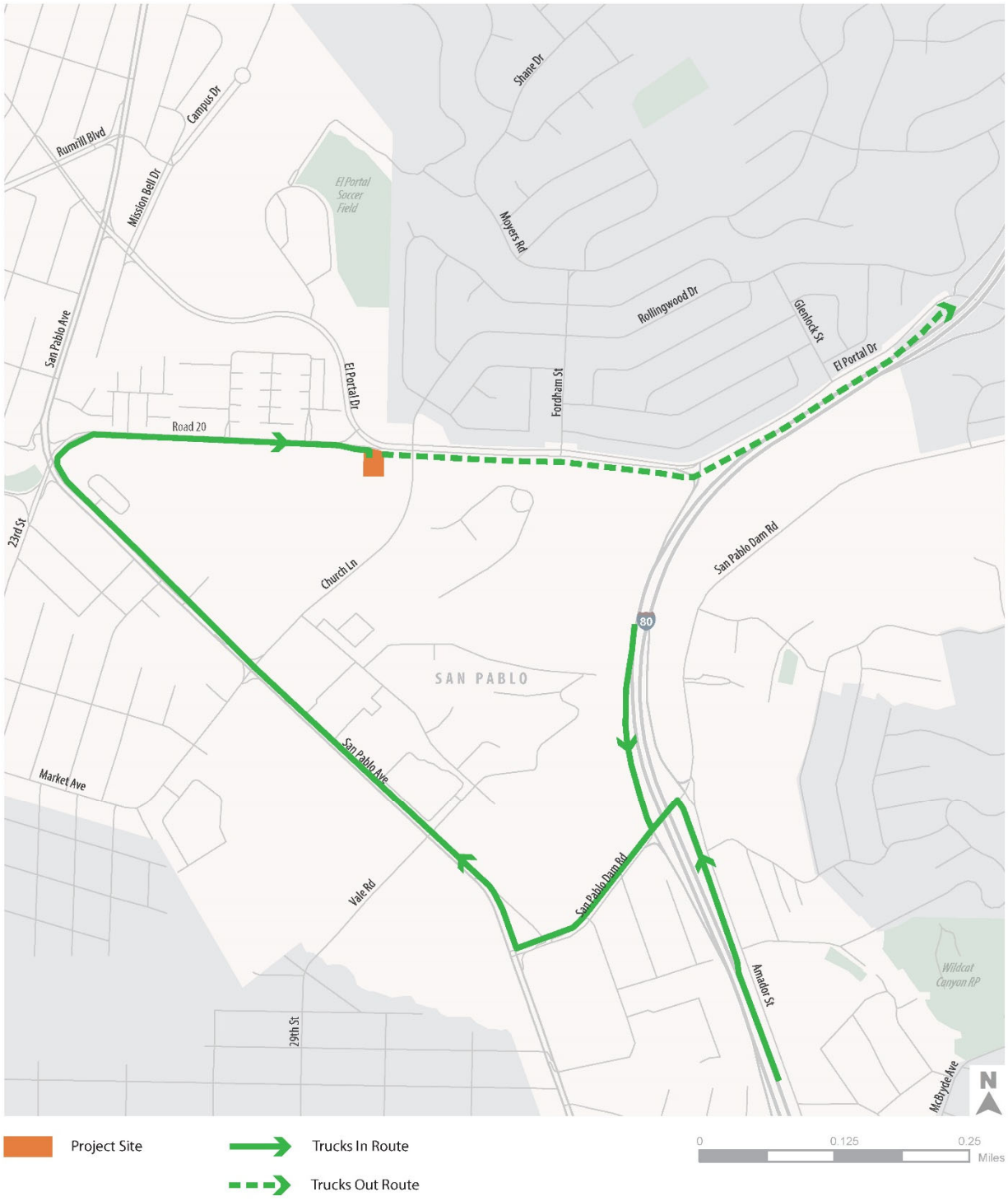
*Project Trip Distribution*

Construction workers are assumed to be non-local residents. As such, and as shown on Figure 3.4.17-1, it is assumed that approximately 40 percent of workers would access the Project site via I-80 at El Portal Drive, 40 percent would access the site via I-80 at San Pablo Dam Road, 10 percent would access the site via southbound San Pablo Avenue, and 10 percent would access the site via 23rd Street. Workers are expected to park on-street along Road 20, El Portal Drive, and Church Lane.

Project-related truck traffic for off-hauling, large equipment deliveries, and material deliveries would access the Project site via I-80 at San Pablo Dam Road. Although El Portal Drive provides a potential route from I-80 to the Project site, that route would involve trucks utilizing Church Lane, a low-volume, two-lane street with on-street parking and bicycle lanes. While truck use of Church Lane is not prohibited, roadway characteristics on Church Lane (e.g., single lane in each direction, on-street parking, presence of a bicycle lane, etc.) and a lack of travel time savings makes use of Church Lane as a truck route unlikely. Trucks exiting the site would travel eastbound on El Portal Drive to I-80. The assumed most direct truck route plan is shown on Figure 3.4.17-2. The clockwise truck route minimizes the number of turns to access and exit the Project site.




**Worker and Truck Trip Distribution**
**Figure 3.4.17-1**




**Truck Routing Plan**
**Figure 3.4.17-2**

**a. Less than Significant Impact with Mitigation**.

**Construction**
The Project would generate short-term increases in vehicle trips by construction workers and construction vehicles on area roadways. Construction-generated traffic would be temporary and, therefore, would not result in long-term degradation in operating conditions or level of service on Project area roadways. Although not required, an intersection operational analysis was performed for locations where maximum construction activities would occur at the Project site to provide information on projected intersection operating conditions with the addition of Project traffic and to identify any deficiencies (such as highly congested conditions that could lead to hazardous conditions for vehicles, bicycles, and pedestrians). The operational analysis evaluates transportation impacts for the following three traffic scenarios:

- **Existing Plus Project Construction** – Existing conditions with added maximum anticipated construction traffic.
- **Construction-Year Plus Project Construction** – Projected construction-year baseline traffic conditions with added maximum anticipated construction traffic.
- **Project Operation** – Post-construction when the Project would be expected to generate two vehicle trips per month for routine maintenance.

*Existing Plus Project Construction*
As shown in Table 3.4.17-1, the Project would generate a maximum total of 76 daily vehicle trips, including 30 worker vehicle trips and 46 truck trips, during peak construction at the Project site.

Using the hourly trip generation estimates and the trip distribution described above, Existing Plus Project segment traffic volumes were determined for the Project's construction phase. For a conservative analysis, it was assumed that all worker vehicle trips would travel to the Project site during the AM peak hour and leave during the PM peak hour. It was also assumed that the hourly truck trips would arrive at the Project site and leave the Project site during each peak hour.

Peak hour volumes for the Existing Plus Project scenario, which are shown on Figure 3.4.17-3, were used to evaluate intersection operations. Peak hour intersection operations with maximum construction traffic volumes assigned to the Project area roadway network are summarized in Table 3.4.17-2. Trucks behave differently than passenger vehicles as they take longer to accelerate, decelerate, and negotiate turns. As such, they affect intersection and roadway operations differently. For the purposes of intersection operations analysis, truck trips are analyzed as passenger car equivalent (PCE), using a ratio of 1:2 (one truck is equivalent to two cars).

Due to the COVID-19 pandemic, traffic volumes have decreased, resulting in atypical and non-representative traffic levels in the area. As a result, alternative methods to estimate current traffic volumes were used. Traffic counts were taken in the AM and PM peak periods

in 2017 at the study intersections for the San Pablo City Hall Reuse Project Transportation Impact Assessment (Fehr & Peers, 2017). The counts were multiplied by one percent per year for four years to establish existing (2021) traffic conditions. The one percent growth factor is consistent with the upper bounds of growth used by Caltrans when forecasting traffic in Alameda County and west Contra Costa County and has been applied to multiple highway improvement projects on Interstates 880, 580, and 680 over the past 20 years.

**Table 3.4.17-2 Existing Plus Project Intersection Operations**

| Intersection | Control | Peak Hour | Existing | | Existing Plus Project | |
|---|---|---|---|---|---|---|
| | | | Delay[a] | LOS | Delay[a] | LOS |
| 1. San Pablo Avenue/23rd Street/Road 20 | Signal | AM | 45.9 | D | 45.9 | D |
| | | PM | 34.4 | C | 34.4 | C |
| 2. Church Lane/El Portal Drive | Signal | AM | 30.7 | C | 31.2 | C |
| | | PM | 33.0 | C | 33.4 | C |
| 3. San Pablo Avenue/Church Lane | Signal | AM | 29.3 | C | 29.3 | C |
| | | PM | 30.2 | C | 30.4 | C |
| 4. San Pablo Avenue/San Pablo Dam Road | Signal | AM | 21.1 | C | 21.1 | C |
| | | PM | 39.7 | D | 39.7 | D |
| | | PM | 0.8 (10.6) | A (B) | 1.3 (11.6) | A (B) |

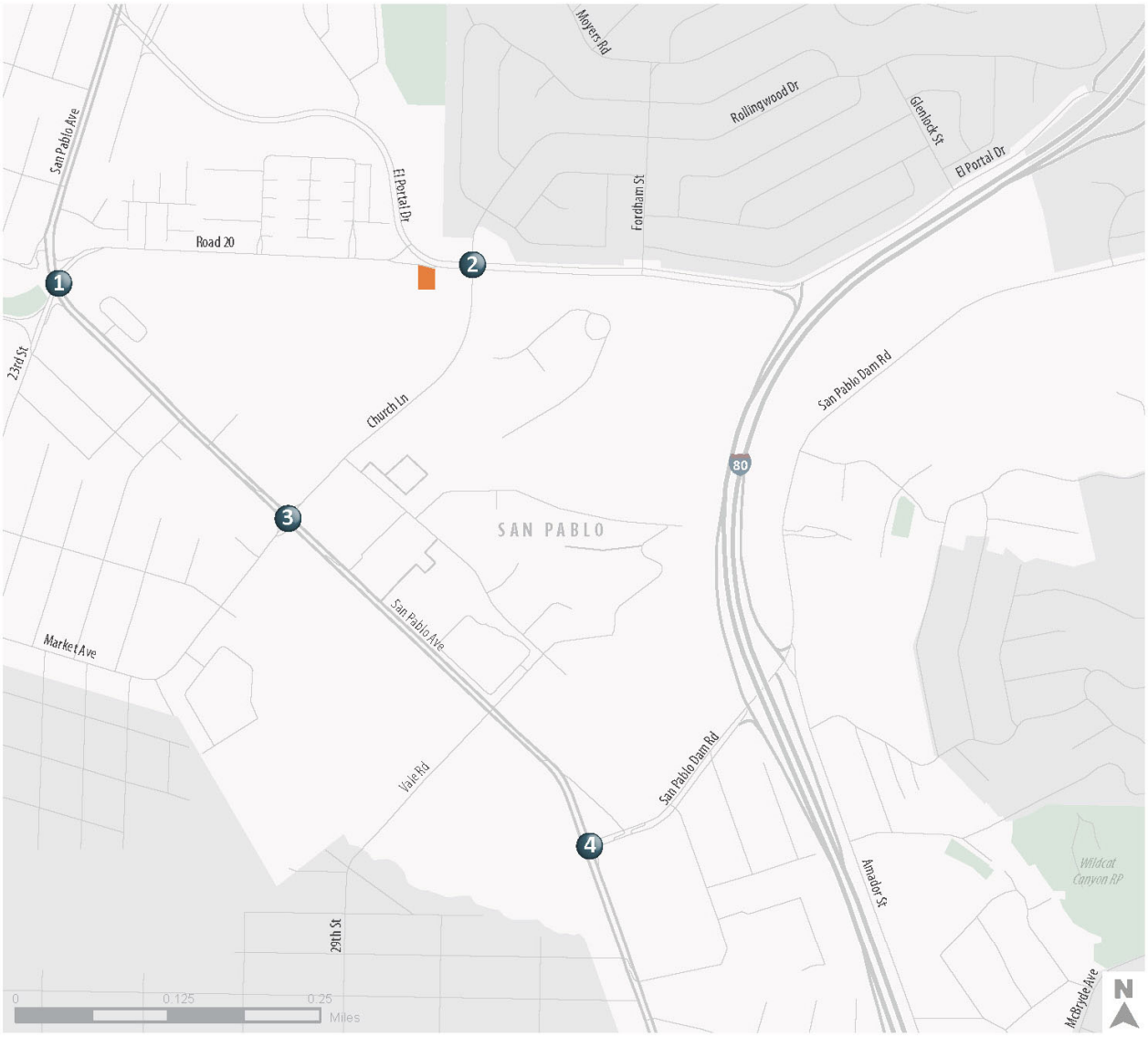
[a] Average vehicle delay in seconds. For side-street stop control intersections, average delay is listed first and delay for the worst approach is shown in parentheses.

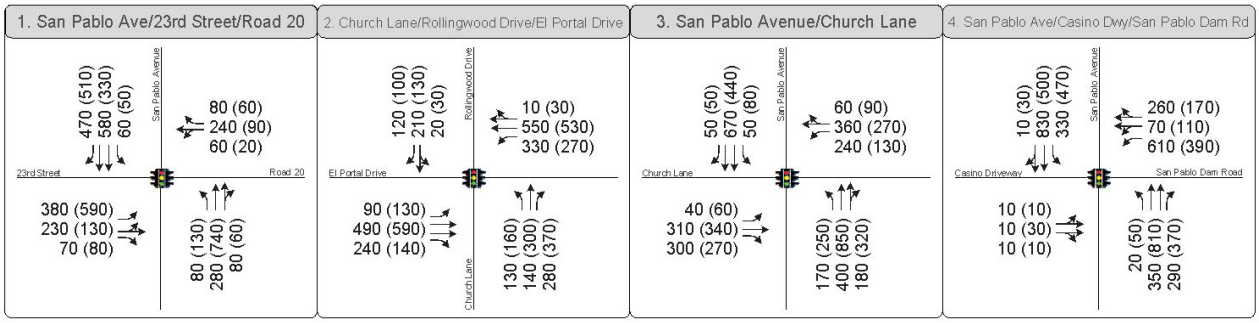
Intersection Level of Service (LOS) is used to rank traffic operation on various types of facilities, based on traffic volumes and roadway capacity, using a series of letter designations ranging from A to F. LOS measures the operational effectiveness of a roadway or intersection. LOS A represents relatively free-flow conditions with little delay at intersections and LOS F represents a significantly congested condition where traffic flows can exceed design capacities resulting in long vehicle delays.

As shown in Table 3.4.17-2, all study intersections would be expected to operate at LOS D or better during peak hours with the addition of Project construction traffic, and Project construction traffic is not expected to increase the average LOS for any study intersection. The Contra Costa Transportation Authority (CCTA) and the City of San Pablo have LOS standards of LOS E or better during peak hours at signalized intersections along San Pablo Avenue and San Pablo Dam Road. Therefore, the impact of construction traffic on vehicle operations would be less than significant under Existing Plus Project Intersection Operations.

*Construction-Year Plus Project Construction*

The Construction-Year Plus Project Construction scenario represents estimated construction-year baseline traffic conditions with the addition of the proposed maximum construction activity Project traffic volumes. The maximum proposed Project traffic volumes were added to the estimated construction-year baseline traffic projections to develop the traffic forecasts. Intersection LOS for Construction-Year Plus Project Construction conditions are summarized in Table 3.4.17-3 and peak hour volumes are shown on Figure 3.4.17-6. For the purposes of intersection operations analysis, truck trips are analyzed as PCE.



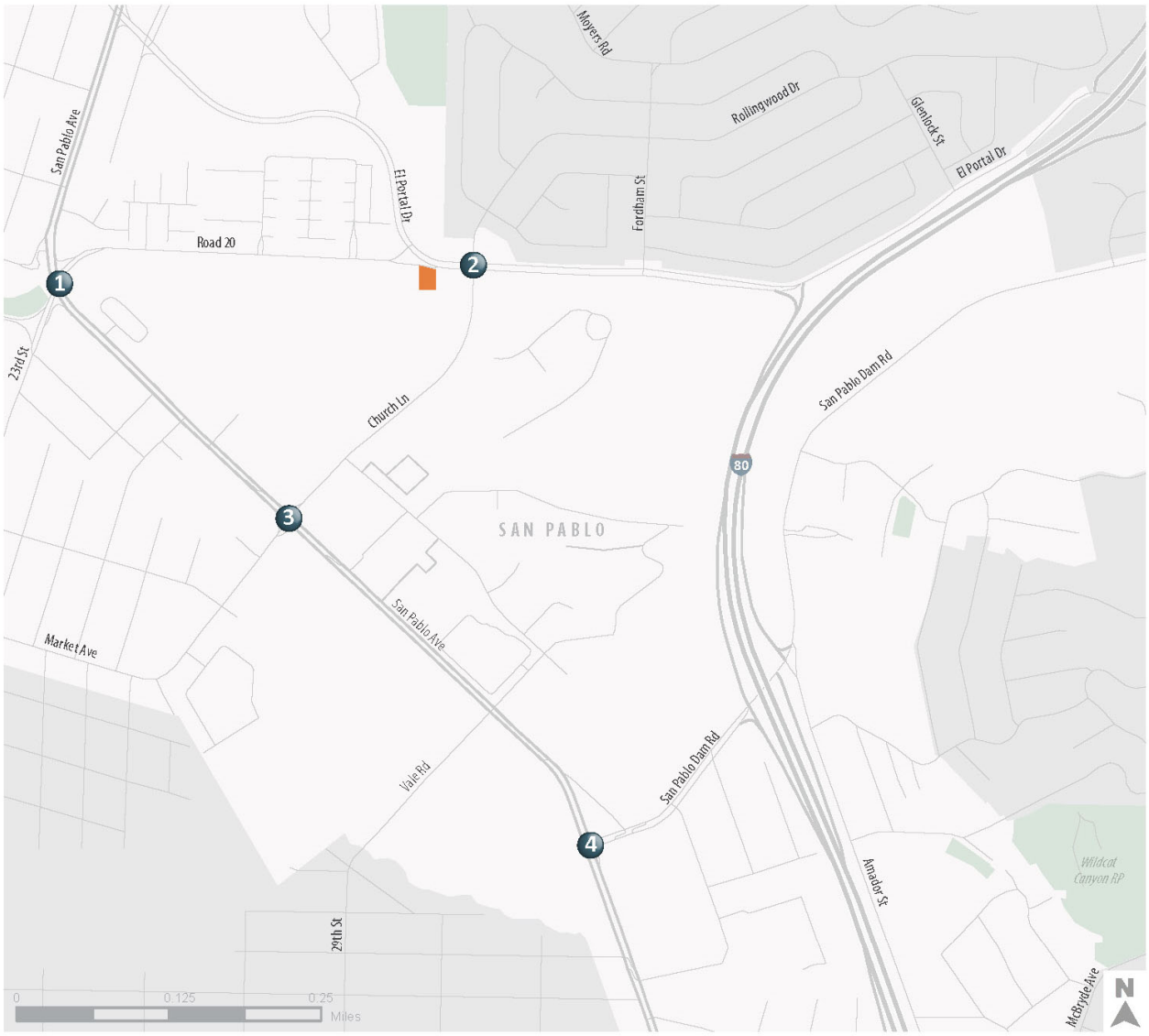

**Existing Peak Hour Intersection Volumes, Lane Configurations and Traffic Controls**

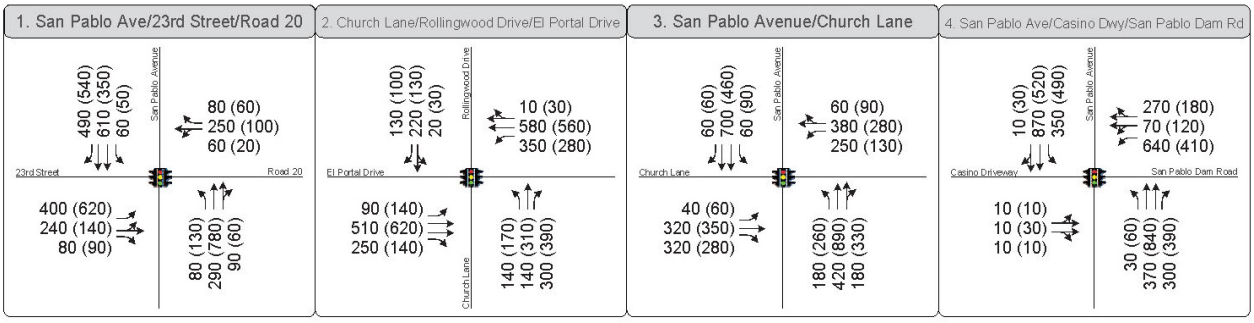
**Figure 3.4.17-3**

## Table 3.4.17-3 Construction-Year Plus Project Peak Hour Intersection Levels of Service

| Intersection | Control | Peak Hour | Existing | | Existing (2026) Plus Project | |
|---|---|---|---|---|---|---|
| | | | Delay[a] | LOS | Delay[a] | LOS |
| 1. San Pablo Avenue/23rd Street/Road 20 | Signal | AM | 50.4 | D | 50.4 | D |
| | | PM | 38.0 | D | 38.0 | D |
| 2. Church Lane/El Portal Drive | Signal | AM | 32.8 | C | 33.4 | C |
| | | PM | 34.8 | C | 35.3 | D |
| 3. San Pablo Avenue/Church Lane | Signal | AM | 31.4 | C | 31.3 | C |
| | | PM | 32.4 | C | 32.6 | C |
| 4. San Pablo Avenue/San Pablo Dam Road | Signal | AM | 22.6 | C | 22.6 | C |
| | | PM | 42.8 | D | 42.8 | D |

[a] Average vehicle delay in seconds.




Project Site  # Study Intersection  XX (YY) AM (PM) Peak Hour Traffic Volumes  Signalized Intersection

**Construction-Year Peak Hour Intersection Volumes, Lane Configurations and Traffic Controls**

**Figure 3.4.17-4**

The addition of Project construction traffic in the estimated construction-year is not expected to degrade the average LOS or worst-approach LOS of any study intersection, as compared to construction-year baseline conditions. The Project would not conflict with any program, plan, policy, ordinance or addressing traffic circulation, and impacts would be less-than-significant.

*Pedestrian Facilities*

Sidewalks are anticipated to always be open to the public throughout the duration of construction of the Project; however, there may be temporary impacts to crosswalks during construction activities associated with trenching for the off-site storm drain installation along Road 20 west of the Project site. Trenching for the storm drain is expected to occur over the course of nine to ten days, with partial road closures on the south side of Road 20 in 80-foot-long segments each day. Crosswalks adjacent to Walter T. Helms Middle School on the stop-controlled east and west approaches of Road 20 at Abella Circle would be blocked on the day or days when that segment of Road 20 is under construction. The nearest alternative crosswalks are 600 feet west at the signalized Road 20/Abella Circle intersection and a multiphase crossing 400 feet east at the uncontrolled crossing of the Road 20-El Portal Drive through-connection and the signalized Road 20/El Portal Drive intersection.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, would be incorporated as part of the project, including Section 3.4, Temporary Traffic Control of EBMUD's Standard Construction Specification 01 55 26, Traffic Regulation, which requires that sidewalks be kept open if safe for pedestrians and, if alternative pedestrian routes are required, signage would be installed to direct pedestrians to detour routes. Even with implementation of EBMUD Standard Construction Specification 01 55 26, Traffic Regulation, in the event Project construction requires the concurrent closure of both crosswalks, these closures would conflict with the City of San Pablo's policy to provide pedestrian crossings where feasible. Additionally, the inconvenience of the pedestrian detours, if both crosswalks were closed at the same time, would conflict with the City of San Pablo's policy to operate city streets based on a "Complete Streets" Concept, which enables safe, comfortable, and attractive access and travel for pedestrians of all ages and abilities. Compliance with the City of San Pablo's policy is particularly important at the Walter T. Helms Middle School, where children use the sidewalks and crosswalks to access the school. To mitigate potential conflicts with City of San Pablo policies, EBMUD would implement the following:

> **Mitigation Measure TRA-1: Road 20 Crosswalk Access.** Construction of the off-site storm drain installation along Road 20 shall be phased such that at least one crosswalk on Road 20 at Abella Circle adjacent to Walter T. Helms Middle School is accessible at any given time. Pedestrian access plans shall be reviewed and approved by the City of San Pablo prior to construction and included in the Project's Traffic Control Plan.

With implementation of Section 3.4, Temporary Traffic Control of EBMUD Standard Construction Specification 01 55 26, Traffic Regulation, and Mitigation Measure TRA-1, the Project would not conflict with any programs, plans, or policies related to pedestrian facilities because alternative crosswalk access would be provided for safe pedestrian travel

around construction zones, therefore impacts would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

*Bicycle Facilities*
Existing bicycle facilities near the Project site include a designated Class 2 Bike Lane on Church Lane, San Pablo Avenue, and 23rd Street. The increased construction traffic on public roadways would potentially decrease the safety of bicyclists because local users may not be accustomed to the presence of large construction vehicles.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 1.2, Submittals, of EBMUD Standard Construction Specification 01 55 26, Traffic Regulation, which would require the Contractor to prepare a Traffic Control Plan to minimize impacts on bicycle circulation on local streets. The Traffic Control Plan may include requirements such as signs, flashing lights, barricades, and other traffic safety devices to minimize impacts on circulation on the streets surrounding the Project site.

With implementation of EBMUD Standard Construction Specification 01 55 26, Traffic Regulation, including Section 1.2, Submittals, which requires implementation of a Traffic Control Plan that includes, but is not limited to, the use of temporary traffic signs, flashing lights, barricades, markings and flaggers, the Project would not conflict with any programs, plans, or policies related to bicycle facilities, and impacts would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

*Transit Facilities*
Temporary impacts to transit facilities may occur during construction activities associated with trenching for the off-site storm drain installation along Road 20 west of the Project site. Trenching for the storm drain would require the partial lane closure, which would be up to approximately 15 feet wide, along the south side of Road 20 west of the Project site. The partial closure would proceed in approximately 80-foot-long segments over the course of nine to ten days to complete installation of the approximately 725-foot-long off-site storm drain system. The through-connection between eastbound Road 20 and eastbound El Portal Drive is approximately 18 feet wide and 300 feet long. The through-connection would therefore need to be closed during construction on that segment. To provide sufficient space for vehicles to utilize the through-connection safely, the through-connection would also need to be closed during construction along any segments east of the Walter T. Helms Middle School parking lot that is on the east side of the school campus which would result in closure of the through-connection for approximately four days.

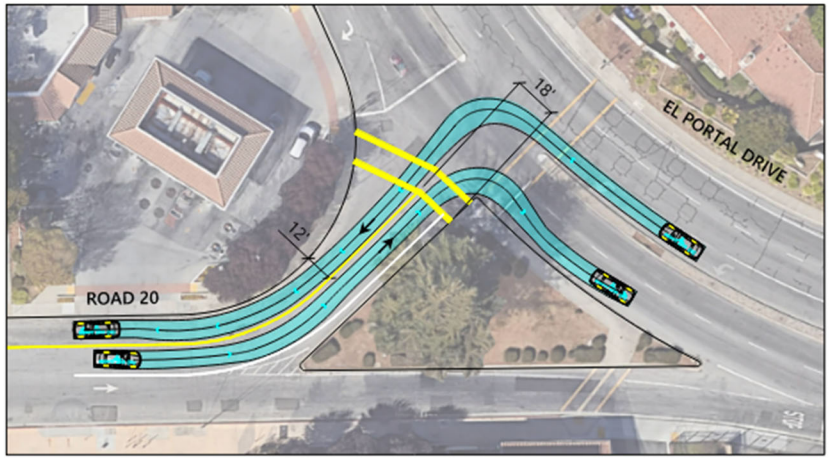
AC Transit Line 76, which runs between the El Cerrito Del Norte Bay Area Rapid Transit Station and the Hilltop Mall in Richmond, operates along Road 20 and has a stop near the Project site. In the eastbound direction, Line 76 utilizes the Road 20 through-connection to continue onto eastbound El Portal Drive. The partial closure of Road 20 would therefore

require temporary rerouting of eastbound Line 76 for approximately four days. The signalized Road 20/El Portal Drive intersection currently has a right-turn restriction for vehicles on the eastbound Road 20 approach, and potential route detours that avoid that intersection would require the short-term closure of both eastbound bus stops on Road 20, which serve the Walter T. Helms Middle School and the short-term closure of at least one additional bus stop on nearby roadways. Closure of transit stops would conflict with the City of San Pablo's policy to design and operate city streets based on a "Complete Streets" Concept that enables safe, comfortable, and attractive access and travel for transit users of all ages and abilities.

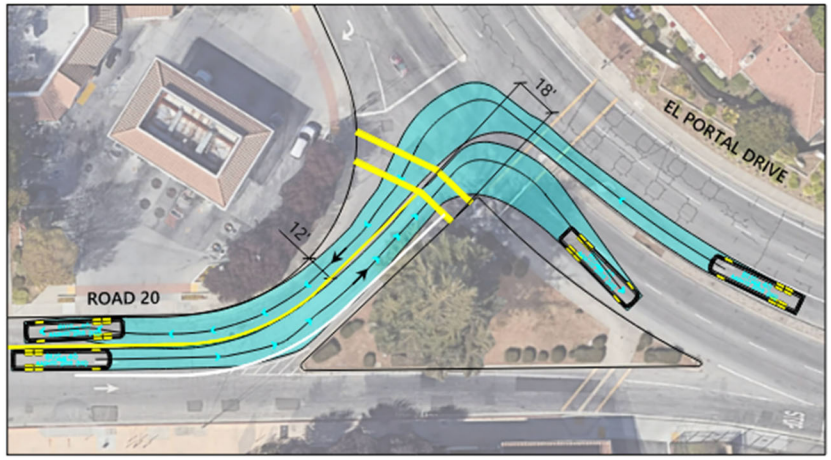
However, as shown in Figure 3.4.17-5, shifting the centerline of the eastbound Road 20 approach at the Road 20/El Portal Drive intersection to provide eastbound vehicles at least 18 feet of width at the crosswalk would provide adequate space for a 40-foot bus or a 40-foot single-unit truck (SU-40) to turn right onto El Portal Drive. Additionally, if the westbound travel lane continues to provide a minimum width of 12 feet, 40-foot buses would continue to have adequate space to make the left turn from El Portal Drive onto westbound Road 20. Temporarily rerouting eastbound Line 76 buses to turn right at the Road 20/El Portal Drive intersection would mean that no bus stops would be forced to close due to construction-caused route changes, though other construction impacts may still potentially result in the short-term closure of bus stops, as described below.

Accordingly, to mitigate potential conflicts with City of San Pablo policies, EBMUD will implement the following:

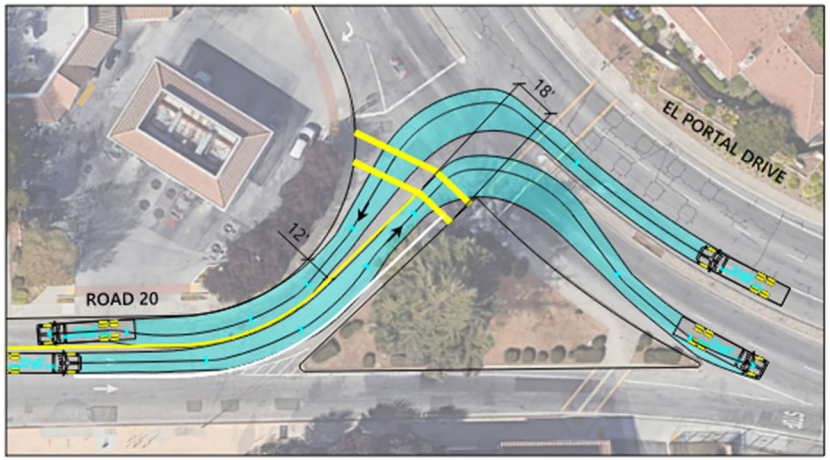
**Mitigation Measure TRA-2: Temporary Road 20 Centerline Adjustment and Line 76 Rerouting.** EBMUD shall coordinate with the City of San Pablo to the extent feasible for the temporary adjustment of the centerline on Road 20 at the signalized intersection with El Portal Drive during the closure of the Road 20-El Portal Drive through-connection to provide adequate space for transit vehicles traveling eastbound on Road 20 to turn right onto El Portal Drive and for transit vehicles traveling northbound on El Portal Drive to turn left onto Road 20. EBMUD shall coordinate with AC Transit for the temporary rerouting of eastbound Line 76 during the closure of the Road 20-El Portal Drive through-connection. Centerline adjustment and transit rerouting plans shall be reviewed and approved by the City of San Pablo and reviewed by AC Transit prior to construction and included in the Project's Traffic Control Plan.



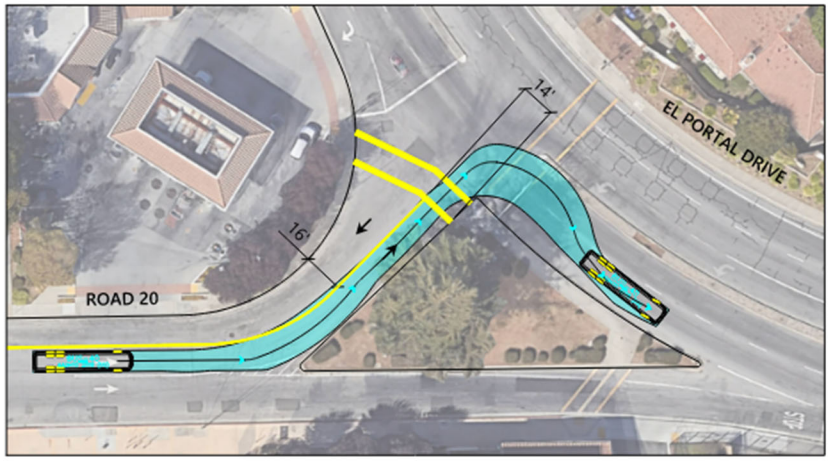

SHIFTED CENTERLINE - PASSENGER VEHICLE




SHIFTED CENTERLINE - SU-40




SHIFTED CENTERLINE - 40' BUS




EXISTING CONDITIONS - 40' BUS

**Turning Assessment of a Shifted Centerline at the Road 20/El Portal Drive Intersection**
**Figure 3.4.17-5**

AC Transit Line 76 includes an eastbound bus stop east of the Road 20/Abella Circle intersection along the frontage of Walter T. Helms Middle School. The partial closure of Road 20 would require the closure or relocation of this bus stop for approximately two days. The nearest alternative bus stops are located approximately 800 feet west and 800 feet southeast of the existing stop. Temporary closure or relocation of bus stops would require prior approval by AC Transit and the City of San Pablo. Closure of a transit stop would conflict with the City of San Pablo's policy to design and operate city streets based on a "Complete Streets" Concept that enables safe, comfortable, and attractive access and travel for transit users of all ages and abilities. To mitigate potential conflicts with City of San Pablo policies, EBMUD will implement the following:

> **Mitigation Measure TRA-3: Road 20 Temporary Bus Stop Relocation.** EBMUD shall coordinate with AC Transit and the City of San Pablo, to the extent feasible, to temporarily relocate the eastbound bus stop on the east side of the Road 20/Abella Circle intersection as needed while construction occurs on the roadway segment that includes the existing bus stop. Any parking obstruction, sidewalk obstruction, travel lane obstruction, or other accommodation required for the temporary bus stop shall be reviewed and approved by the City of San Pablo and reviewed by AC Transit prior to construction and included in the Project's Traffic Control Plan.

With implementation of Mitigation Measures TRA-2 and TRA-3, the Project would not conflict with any programs, plans, or policies related to transit facilities because coordination and approval for temporary Road 20 centerline adjustment, short-term bus rerouting, and temporary bus stop relocation would be completed with AC transit and the City of San Pablo, and impacts would be less than significant.

*On- and Off-Street Passenger Loading and Unloading*

Temporary impacts to passenger loading and unloading may occur at Walter T. Helms Middle School during construction activities associated with trenching for the off-site storm drain installation along Road 20 west of the Project site. Trenching for the storm drain would temporarily restrict 80-foot-long segments of on-street passenger loading along the frontage of Walter T. Helms Middle School, blocking approximately four on-street loading spaces per day over the course of up to approximately three days. Demand for passenger loading and unloading for Walter T. Helms Middle School is expected to be concentrated during the periods immediately preceding and following the school opening and closing bell times, which have historically been at 8:30 a.m. and 3:20 p.m., respectively. Additionally, trenching would block the one-way exit driveway at Road 20/Abella Circle used by parents for drop-offs on school property for approximately two days. Reduced space for passenger loading and unloading during periods of high demand would conflict with the City of San Pablo's policy to design and operate city streets based on a "Complete Streets" Concept that enables safe, comfortable, and attractive access and travel for all roadway users. However, as described in the Project Description, there would be no storm drain pipeline construction activity during the normal school year for the Walter T. Helms Middle School. Therefore, potential impacts to passenger loading and unloading due to storm drain pipeline installation would be less than significant.

During the periods before and after bell times and other major events, the loading and unloading zones along Road 20 on the Walter T. Helms Middle School frontage would have high vehicle turnover, with frequent speed reductions to enter the loading zone and merge from the loading zone back into the travel lane. As described in Project Trip Distribution above, construction trucks traveling to the Project site would travel eastbound along Road 20 adjacent to Walter T. Helms Middle School. Due to the high turnover of vehicles entering and exiting the loading zone and potential safety hazards related to the loading and unloading of children, construction truck travel during periods of high passenger loading and unloading demand at Walter T. Helms Middle School would conflict with the City of San Pablo's policy to design and operate city streets based on a "Complete Streets" Concept that enables safe, comfortable, and attractive access and travel for all users. To mitigate potential conflicts with City of San Pablo policies, EBMUD will implement the following:

> **Mitigation Measure TRA-4: Construction Truck Travel Restriction.** EBMUD shall coordinate with Walter T. Helms Middle School to restrict construction truck traffic (e.g., material delivery and haul trucks) during the 30 minutes immediately preceding and 30 minutes immediately following the morning and afternoon bell times when school is in regular session, as well as around other major events (e.g., sporting events, parent-teacher conferences) that would bring a substantial number of people to campus. Bell times and other major events affecting the period of construction truck travel shall be documented in the Project's Traffic Control Plan.

With implementation of Mitigation Measure TRA-4 and because there would be no storm drain pipeline construction during the normal school year for the Walter T. Helms Middle School, the Project would not conflict with any programs, plans, or policies related to on-street passenger loading and unloading because construction truck travel would be restricted, and impacts would be less than significant.

*Parking*

Although parking is not a CEQA significance criterion, the availability and temporary loss of on-street vehicle parking and loading was considered in this analysis. On-street parking is available along Church Street, Road 20, and El Portal Drive in the vicinity of the Project site. It is expected that construction workers would find an available on-street parking space and walk to the work site. Due to school closures related to the COVID-19 pandemic, observations of aerial imagery from 2018 and 2019 when schools were in session were used to assess parking availability. Based on the aerial imagery, the visual survey indicated that there is adequate available on-street parking within 0.35 miles (about a seven-minute walk) of the work site to accommodate construction worker parking throughout the construction period.

**Operation**

All roadways and sidewalks would be restored after construction is complete and operation of the Project would generate approximately two roundtrips per month for routine maintenance and inspection of the facility. Operation of the proposed Project would have a

negligible effect on traffic circulation and not conflict with any program plans, ordinances, or policies addressing the circulation system. No impact would occur during operation.

**b. Less than Significant Impact.**

CEQA Guidelines Section 15064.3, contains new criteria that were certified and adopted in December 2018. Section 15064.3 states that Vehicle Miles Traveled (VMT) is the most appropriate metric to assess transportation impacts.

Consistent with the CCTA VMT Methodology, VMT impacts would be less than significant for a project if any of the identified screening criteria outlined below are met:

1. **CEQA Exemption**. Any project that is exempt from CEQA is not required to conduct a VMT analysis.
2. **Small Projects**. Small projects can be presumed to cause a less-than-significant VMT impact. Small projects are defined as having 10,000 square feet or less of non-residential space or 20 residential units or less, or otherwise generating less than 836 VMT per day.[10]
3. **Local-Serving Uses**. Projects that consist of Local-Serving Uses can be presumed to have a less-than-significant impact, absent substantial evidence to the contrary, because these types of projects will primarily draw users and customers from a small geographic area that will lead to short-distance trips and trips that are linked to other destinations.
4. **Projects Located in Transit Priority Areas (TPAs)**. Projects located within a TPA can be presumed to have a less-than-significant impact, absent substantial evidence to the contrary.[11] This exemption would not apply if the project:

    1. Has a Floor Area Ratio (FAR) of less than 0.75;
    2. Includes more parking for use by residents, customers, or employees than required by the lead agency (if the agency allows but does not require the project to supply a certain amount of parking);
    3. Is inconsistent with the applicable Sustainable Communities Strategy (SCS) (as determined by the lead agency, with input from the Metropolitan Transportation Commission); or
    4. Results in a net reduction in multi-family housing units.

[10] This threshold ties directly to the OPR Technical Advisory which notes that CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301, subd. (e)(2).) Using statewide average data from the California Statewide Household Travel Survey (CHTS), the amount of daily VMT associated with 10,000 square feet of non-residential space is 836 VMT. Also using statewide average CHTS data, this level of VMT is associated with 20 housing units. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 20 housing units or 10,000 square feet of non-residential space could be considered not to lead to a significant impact.

[11] https://ccta1.maps.arcgis.com/apps/webappviewer/index.html?id=4135020bb272458f824152fedb78a088

5. **Projects Located in Low VMT Areas**. Residential and employment-generating projects located within a low VMT-generating area can be presumed to have a less-than-significant impact absent substantial evidence to the contrary.

   A low VMT area is defined as follows:
   - For housing projects: Cities and unincorporated portions within CCTA's five subregions that have existing home-based VMT per capita that is 85 percent or less of the existing County-wide average.
   - For employment-generating projects: Cities and unincorporated portions of CCTA's five subregions that have existing home-work VMT per worker that is 85 percent or less of the existing regional average.

   There is no definition of a low VMT area for Regional-Serving and Other Projects since these projects always require a VMT Analysis unless they are screened out under Criteria 1 through 4.

**Construction and Operation**
Construction of the Project would on average generate 26 daily worker and truck trips at the Project site. The construction phase of the Project satisfies the "Small Projects" screening criteria as construction would generate the equivalent of fewer than 20 residential units. Furthermore, once constructed, the Project would generate approximately two trips per month, similar to existing conditions and operation of the existing equipment at the Project site. Therefore, the Project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) during construction, and impacts related to VMT would be less than significant.

**c. Less than Significant Impact.**

**Construction**
Construction of the Project would not modify the geometric design features of any publicly accessible roadway. An increase in hazards due to presence of construction equipment within roadways could occur during the storm drain installation on Road 20.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 2.1, Traffic Control Devices, of EBMUD Standard Construction Specification 01 55 26, Traffic Regulation, which requires the Contractor incorporate various traffic control requirements into a Traffic Control Plan that reduce potential for traffic hazards including the use of temporary traffic signs, flashing lights, barricades, markings and flaggers. Specifically, Section 1.2, Submittals, requires preparation of a Traffic Control Plan that conforms to the most current version of the Caltrans Manual of Traffic Controls for Construction and Maintenance Work Zones and the Manual on Uniform Traffic Control Devices.

With implementation of EBMUD Standard Construction Specification 01 55 26, Traffic Regulation, including Section 2.1, Traffic Control Devices, which requires implementation of

a Traffic Control Plan that includes, but is not limited to, the use of various traffic control requirements that reduce potential for traffic hazards, impacts related to construction traffic hazards from the Project would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**
All roadways and sidewalks would be restored after construction is complete. No impact would occur during operation.

**d. Less than Significant Impact.**

**Construction**
EBMUD would maintain adequate street width to maintain two-way traffic flow on Road 20, with the exception of the short transition to El Portal Drive. As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 1.2, Submittals, and Section 3.0, Execution, of EBMUD Standard Construction Specification 01 55 26, Traffic Regulation, which require preparation of a Traffic Control Plan that includes a description of emergency response vehicle access. If the road or area is completely blocked, preventing access by an emergency responder, a contingency plan that provides immediate emergency response vehicle access must be included. The Traffic Control Plan must conform to the most current version of the Caltrans Manual of Traffic Controls for Construction and Maintenance Work Zones and the Manual on Uniform Traffic Control Devices.

With implementation of EBMUD Standard Construction Specification 01 55 26, Traffic Regulation, including Section 1.2, Submittals, and Section 3.0, Execution, which require implementation of a Traffic Control Plan that includes the development of an emergency vehicle access plan that would require a contingency plan for immediate emergency response vehicle access for streets with full road closures, and two-way access along Road 20 would be maintained during construction, impacts related to emergency vehicle access on any roadway impacted by the Project would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**
All roadways and sidewalks would be restored to pre-Project conditions after construction is complete. No impact would occur during operation.

## REFERENCES

Panorama Environmental, Inc. and Fehr & Peers. (2021, May). *East Bay Municipal Utility District Wildcat Pumping Plant Project Transportation and Traffic Technical Report.*

EBMUD. (2017, February 9). Standard Construction Specification. *Section 01 55 26, Traffic Regulation*.

Caltrans. (2020). *Truck Networks on California State Highways*. Retrieved from http://www.dot.ca.gov/hq/traffops/trucks/truckmap/truckmap-d04.pdf.

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West Contra Costa Transportation Advisory Committee and CCTA. (2017). *West County Action Plan for Routes of Regional Significance*.

## 3.4.18 Tribal Cultural Resources

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | ☐ | ☐ | ☒ | ☐ |
| i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | ☐ | ☐ | ☐ | ☒ |
| ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe | ☐ | ☒ | ☐ | ☐ |

**DISCUSSION**

Impacts on tribal cultural resources are assessed in consultation with affiliated Native American tribes that have requested consultation in accordance with PRC Section 21080.3 and is based upon the Wildcat Pumping Plant Project Cultural Resources Assessment Report (Panorama, 2021) that includes a review of archeological and built environment cultural resources for the Project site and the new storm drain pipeline alignment. The analysis considers whether the Project would cause damaging effects to any tribal cultural resource, including archaeological resources and human remains.

EBMUD maintains an Archaeological Resources GIS database that is updated annually with the results of a records search of the NWIC of the California Historical Resources Information System. A GIS survey of the Project site and new storm drain pipeline alignment found no recorded occurrences of archaeological resources within the immediate vicinity (half-mile radius). A separate records search that was conducted on May 24, 2021 at the NWIC also indicated the Project site does not contain any previously recorded Native American sites or historic-period archaeological sites. The records search included a review of cultural resources studies and recorded cultural resources within a 0.25-mile radius of the Project site.

Additionally, a desktop-level review was conducted to establish a baseline understanding of the cultural resources and additional context for the Project site. The Project site is located adjacent to Wildcat Creek, which is known as a focus of Ohlone occupation in the area, and several known villages are within a few miles of the Project site. The sediments underlying the Project site are also mapped as Conejo clay loam, dated nearby to the Late Holocene and known to overlay archaeological deposits. Given the known prehistoric use in the watershed and upstream areas and the underlying sediment, the Project site was determined to have moderate potential to contain archaeological resources. Therefore, ground-disturbing activities proposed as part of the Project has the potential to impact these buried archaeological resources.

EBMUD has not received any requests from tribes for Project notifications under PRC Section 21080.3.1(b)(1). However, EBMUD contacted the NAHC on April 6, 2021 for a search of the SLF for any cultural resources that may be within or adjacent to the Project. EBMUD also requested a list of Native American individuals/organizations that may have knowledge of cultural resources within the Project sites. The NAHC responded on April 16, 2021, stating that the results of the SLF search were positive for the presence of Native American cultural resources, and provided a list of seven tribes that are affiliated within the Project site. EBMUD subsequently emailed and sent letters on April 21, 2021 regarding the Project to all of the tribes on the NAHC list. One response from the Indian Canyon Band of Costanoan Ohlone People (Tribe) was received via email on April 21, 2021 indicating that the Project area overlaps or is near the management boundary of a recorded and potentially eligible cultural site. No information regarding the resource or location was provided by the Tribe or any other tribal representative contacted for the Project. EBMUD conducted an informational meeting with the Tribe on May 24, 2021. The Tribe recommended a Native American monitor and archaeologist be present on the Project site during construction to minimize potential effects of the cultural site. In response, EBMUD will implement Mitigation Measure CR-1 (Periodic Archaeological Inspections and Construction Monitoring) to mitigate potential adverse impacts to the cultural site.

**a.i. No Impact**

No tribal cultural resources that are listed, or eligible for listing in the California Register of Historical Resources are known within the Project area. As a result, there is no impact.

Tribal Cultural Resources that are eligible for listing in the California Register of Historical Resources may be as unanticipated archaeological discoveries during Project construction. Impacts to these resources are discussed under item **a.ii** below.

**a.ii. Less than Significant Impact with Mitigation Incorporated.**

The results of the background research of EBMUD's Archeological Resources GIS indicates that there are no archaeological tribal cultural resources within the Project site and that there is a low potential to uncover resources during Project implementation. Despite the low archaeological sensitivity, the possibility of inadvertent discovery cannot be entirely discounted, and could result in a potentially significant impact. Furthermore, the presence of

a cultural site on the SLF suggests there may be an increase in potential to encounter human remains at the Project site. As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 3.9, Protection of Cultural and Paleontological Resources, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, which requires appropriate cultural resources management practices and complies with statutory requirements. Specifically, Section 3.9, Protection of Cultural and Paleontological Resources, outlines the following procedures:

- Preconstruction cultural resources training is required for all construction personnel.
- In the event that a cultural resource is identified during preconstruction activities or during excavation for construction activities, all work within 100 feet of the resource shall be halted until a qualified archaeologist can review, identify, and evaluate the resource for its significance. Should the archaeologist determine that an archaeological resource has the potential to be a tribal cultural resource, a Native American monitor shall be retained by EBMUD to monitor work in the area where the tribal cultural resource was discovered.

In addition to implementation of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, including Section 3.9, Protection of Cultural and Paleontological Resources, EBMUD would implement the following mitigation measure as described under Section 3.4.5, Cultural Resources:

**Mitigation Measure CR-1: Periodic Archaeological Inspections and Construction Monitoring.** During ground-disturbing phases of Project construction (initial excavation and grading, suction and discharge pipeline construction, on-site drainage construction, and Road 20 storm drain pipeline installation), a Native American monitor and a qualified archaeologist shall visit the site two times per week to inspect unexcavated sediments and soils (i.e., intact soils along trench walls and excavations) for any sign of potential archaeological deposits. If the Native American monitor and archaeologist have observed excavation to final depth in sufficient areas to adequately characterize the Project site and the underlying sediments appear disturbed or other evidence to suggest that archaeological deposits are highly unlikely, the Native American monitor and qualified archaeologist may cease bi-weekly inspections, in consultation with EBMUD.

If during bi-weekly inspections the Native American monitor and archaeologist identify sensitive intact sediments that are likely to contain archaeological deposits, ground-disturbing activities shall be halted, and the qualified archaeologist shall develop an appropriate Archaeological Monitoring Plan in consultation with the Native American monitor and EBMUD. Depending on the type and condition of the sediments, the Archaeological Monitoring Plan may include, but not be limited to, increased frequency of periodic archaeological inspections, full-time archaeological construction monitoring, or presence/absence testing in areas of heightened archaeological sensitivity. The Archaeological Monitoring Plan shall detail the methods, schedule, and thresholds for returning to bi-weekly archaeological inspections.

With implementation of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, including Section 3.10, Protection of Cultural and Paleontological Resources, which requires implementation of procedures that address the inadvertent discovery of cultural resources and ensures compliance with legal requirements regarding the protection of such resources, and Mitigation Measure CR-1, which requires periodic archeological inspections and construction monitoring and implementation of archaeological resources procedures that address the inadvertent discovery of cultural resources, the Project's construction impacts related to tribal cultural resources are less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

## REFERENCES

EBMUD. (2018, August 31). Standard Construction Specification. *Section 01 35 44, Environmental Requirements*.

Panorama Environmental, Inc. and Paleo West. (2021, August). *East Bay Municipal Utility District Wildcat Pumping Plant Project Cultural Resources Assessment Report*.

## 3.4.19 Utilities and Service Systems

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Require or result in the relocation or construction of new or expanded water, wastewater treatment 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 wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ☐ | ☒ |
| d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | ☐ | ☐ | ☒ | ☐ |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | ☐ | ☐ | ☒ | ☐ |

**DISCUSSION**

### a. Less than Significant Impact.

The Project includes construction of a new storm drain pipeline in Road 20 that will connect to an existing storm drain pipeline to capture and transmit stormwater runoff from the site. The Project would incorporate Provision C.3 in the MRP for Contra Costa County by utilizing gravel paved areas, stormwater bioretention basins, and landscaped planting, as described in the Project Description and shown in Figure 2.5, Conceptual Landscape Plan for New Wildcat PP Site. As a result, the impervious area onsite will be minimized and stormwater runoff from the Project site is expected to be less than existing conditions as most of the stormwater would be designed to flow into the stormwater bioretention basins, landscaped areas, and paved gravel areas on site. Remaining runoff would drain into the new storm drain pipeline at the northwest corner of the site that would then connect into an existing storm drain pipeline that runs perpendicular to Road 20.

Because the Project incorporates Provision C.3 into the Project design and stormwater runoff will be allowed to infiltrate on the Project site over green infrastructure and any remaining stormwater runoff, which is expected to be less than existing conditions, will be diverted to a

new storm drain pipeline, impacts from construction of the new storm drain pipeline will be less than significant.

The Project would not include or require new or expanded water, wastewater treatment, electric power, natural gas, or telecommunication facilities. Therefore, there would be no impact associated with relocation or construction of new or expanded water, wastewater treatment, electric power, natural gas, or telecommunication facilities.

**b. No Impact.**

The Project would not require additional water supplies; rather, the Project would ensure continuation of existing water supplies for existing and reasonably foreseeable future development demands during normal, dry and multiple dry years by replacing existing aging infrastructure, improving reliability and providing redundancy, as needed.

**c. No Impact.**

The Project would not generate long-term wastewater outputs, as the Project replaces facilities within a closed, potable water distribution system.

**d. and e. Less than Significant Impact.**

**Construction**
The Project would generate construction debris from construction of the new PP and pipeline trenching and excavation of in-place soils. Construction debris would only be generated during construction and the impact would therefore be temporary. Soils and any solid waste encountered during demolition, construction, and trenching and excavations would be disposed of at an appropriate landfill.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Section 1.3.C, Construction and Demolition Waste Disposal Plan, of EBMUD Standard Construction Specification 01 35 44, Environmental Requirements, which includes submittal of a Construction and Demolition Waste Disposal Plan that:

- Identifies how the Contractor would remove, handle, transport, and dispose of all materials required to be removed under this contract in a safe, appropriate, and lawful manner in compliance with all applicable regulations of local, state, and federal agencies having jurisdiction over the disposal of removed materials.
- Requirements for removing, handling, transporting, and disposing of any waste material (except liquid wastes addressed in the Water Control and Disposal Plan).
- Includes a list of reuse facilities, recycling facilities and processing facilities that would be receiving recovered materials.
- Identifies each type of waste material to be reused, recycled or disposed of, and the estimated amount, by weight.

- Includes a sampling and analytical program for characterizing any waste material, as needed, prior to reuse, recycling or disposal.
- Identifies the disposal method for soil and the approved disposal site and includes written documentation that the disposal site would accept the waste. Prior to disposition of wastes, the Contractor must submit copies to EBMUD of waste profile forms and correspondence between the Contractor and the disposal facility. Prior to disposal of hazardous wastes, the Contractor must submit copies of the waste manifests to EBMUD and provide documentation that the waste hauler is regulated by the state to transport hazardous wastes.

With implementation of Section 1.3.C, Construction and Demolition Waste Disposal Plan, of EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements, which includes provisions for identifying disposal methods for soil, reusing or recycling construction debris, and the approved disposal site, Project impacts from generating 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 for the Project would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**
The Project would not generate long-term solid waste outputs, as the Project upgrades and replaces facilities within a closed, potable water distribution system.

## REFERENCES

EBMUD. (2018, August 31). Standard Construction Specification. *Section 01 35 44, Environmental Requirements.*

Panorama Environmental, Inc., MWA Architects, and Dillingham Associates. (2021). *East Bay Municipal Utility District Wildcat Pumping Plant Project Aesthetics Conceptual Design Report.*

## 3.4.20 Wildfire

| If located in or near state responsibility areas or lands classified as very high fire severity zones, would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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? | ☐ | ☐ | ☐ | ☒ |

## DISCUSSION

### a. Less than Significant Impact.

**Construction**

The San Pablo Emergency Operation Manual, adopted in 1999, outlines the city's response to different types of disaster situations including seismic hazards, extreme weather conditions, and flooding. The manual is meant to work in conjunction with other disaster mitigation plans of the region, such as the Association of Bay Area Governments (ABAG) Local Hazard Mitigation Plan and the State Emergency Plan to implement emergency response and evacuation procedures. Construction of the new storm drain pipeline could require partial closure of roadways, which could impede emergency access during these closures.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project including Section 1.2, Submittals, of EBMUD Standard Construction Specification 01 55 26, Traffic Regulation, which requires the preparation and submittal of a Traffic Control Plan that conforms to the most current version of the Caltrans Manual of Traffic Controls for Construction and Maintenance Work Zones and requires that the Traffic Control Plan include a description of emergency response vehicle access. If the road or area is completely blocked, preventing access by an emergency responder, a contingency plan must be included.

With implementation of the requirements specified in EBMUD Standard Construction Specification 01 55 26, Traffic Regulation, including Section 1.2, Submittals, which requires the preparation and submittal of a Traffic Control Plan, impacts to an adopted emergency response plan or emergency evacuation plan during construction would be less than significant. The EBMUD Practices and Procedures Monitoring and Reporting Plan (Appendix B) lists the applicable standard specifications language.

**Operation**
Operation of the new PP, storm drain pipeline, and air valves would not require lane or road closures and would not impair or physically interface with an adopted emergency response plan or emergency evacuation plan. No impacts to emergency response or evacuation plans from operation of the Project would occur.

**b. No Impact**

The proposed Project does not include any new facilities or structures that would be occupied. Therefore, there would be no impact of the Project that would expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

**c. and d. No Impact**

Although the Project does contain construction of new infrastructure including the new PP structure and the underground pipeline, the new infrastructure would be located completely in urban/suburban areas and would not be located within a mapped landslide area. Therefore, there is no impact from the Project due to the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment or expose people or structures to post-wildfire risks including flooding, landslides, slope instability or drainage changes.

**REFERENCES**

CAL FIRE. (2007). Fire Hazard Severity Zones in SRA [map]. Scale 1:100,000.

CAL FIRE. (2008). Very High Fire Hazard Severity Zones in LRA (Oakland) [map]. Scale 1:40,000.

City of San Pablo. (2011, April). *San Pablo General Plan 2030.*

EBMUD. (2017, February 9). Standard Construction Specification. *Section 01 55 26, Traffic Regulation.*

## 3.4.21 Mandatory Findings of Significance

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

**DISCUSSION**

**a. Less than Significant with Mitigation Incorporated**.

The Project has the potential to degrade the quality of the environment. However, as described in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project. For impacts related to Aesthetics, Air Quality, Biological Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, and Utilities and Service Systems, the relevant EBMUD standard practices and procedures discussed in the MND ensure that impacts would be less than significant.

Further, as described in the MND above, the Project has the potential to cause significant impacts related to Transportation, Cultural Resources, and Tribal Cultural Resources. Mitigation measures have been identified to reduce these impacts to less than significant levels. No further mitigation would be required, and the Project would not degrade the quality of the environment (see Sections 3.4.1 to 3.4.20 above for detailed analysis).

The Project has the potential to degrade the quality of the environment. The impact from construction on pedestrian routes could be potentially significant. However, this impact would be reduced to less than significant levels through implementation of Mitigation

Measure TRA-1. The impact from construction on bus stops requiring closure or temporary relocation could be potentially significant. However, this impact would be reduced to less than significant levels through implementation of Mitigation Measures TRA-2 and TRA-3. Temporary impacts to passenger loading and unloading may occur at Walter T. Helms Middle School during construction activities associated with trenching for the off-site storm drain installation along Road 20 west of the Project site. However, this impact would be reduced to less than significant levels through implementation of Mitigation Measures TRA-4. For additional discussion of Mitigation Measures TRA-1, TRA-2, TRA-3, and TRA-4, please refer to Section 3.4.17, Transportation. No further mitigation would be required. The Project has the potential to cause a substantial adverse change in the significance of an archeological resource and disturb human remains due to the presence of a cultural site on the SLF. However, this impact would be reduced to less than significant levels through implementation of Mitigation Measure CR-1. For additional discussion of Mitigation Measure CR-1, please refer to Section 3.4.5, Cultural Resources, and Section 3.4.18, Tribal Cultural Resources. No further mitigation would be required.

The Project does not have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, reduce the number or restrict the range of a rare or endangered plant or animal, or threaten to eliminate a plant or animal community, as described in the Biological Resources section of the document. No further mitigation would be required.

**b. Less than Significant Impact.**

As described in the document above, the Project has the potential to cause significant impacts related to Transportation, Cultural Resources, and Tribal Cultural Resources. Mitigation measures have been identified that would reduce these impacts to less than significant levels.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project. For impacts related to Aesthetics, Air Quality, Biological Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, and Utilities and Service Systems, the relevant EBMUD standard practices and procedures discussed in the MND ensure that impacts would be less than significant.

For any impacts to act cumulatively on any past, present, or any reasonably foreseeable projects, these projects would have to have individual impacts in the same resource areas at the same time and in the same localized area as the proposed Project. A review of projects near the Project sites found the following past, current and probable future projects:

<u>Contra Costa Transportation Authority</u>

- Interstate 80/San Pablo Dam Road Interchange Improvements
    - Expected completion 2023

<u>City of San Pablo</u>

- San Pablo Avenue Bridge Replacement and Intersection Improvement Project
    - To be determined
- Highway Safety Improvement Program
    - Expected completion 2022
- Annual Pavement Maintenance Project
    - Expected completion 2023

EBMUD

- Dover Ave, 23rd Street & Powell Street Pipeline Replacement
    - Complete
- Sutter Avenue Pipeline Replacement
    - Complete
- Pine Avenue Pipeline Replacement
    - Complete
- West of Hills Northern Pipelines (Central Pressure Zone Pipeline in Richmond/San Pablo)
    - Tentatively scheduled for 2035
- Trenton Boulevard Cluster Pipeline Replacement
    - Expected completion 2022

No other projects were identified near the Project sites during review of the following agencies: Amtrak, BART, Caltrans, PG&E and Union Pacific.

The scope and analysis for cumulative impacts on aesthetic resources encompasses the locations from which a viewer could see the Project construction or operations elements, along with views of other projects. The cumulative impacts analysis also considers consecutive views where cumulative projects may be seen in close succession as a viewer moves through an area. A significant cumulative effect related to light and glare would result if the effects of the Project combined in space and time with those of other projects to cause substantial nuisance or hazard conditions on the same light-sensitive receptor.

The geographical extent for cumulative impacts related to transportation includes areas in the vicinity of the Project site that would experience construction activity at the same time as the Project. Given that the Project would not result in additional traffic during its operational period, only the construction period is evaluated relative to potential cumulative impacts. None of the projects listed above are currently scheduled to overlap (in time and space) with the Project's anticipated construction schedule. However, delays to any of the projects listed above such that they overlap with the Project construction could result in potentially significant cumulative impacts on traffic. Such impacts would include a short-term increase in vehicle traffic, and reductions in the number or the available width of travel lanes on roads where construction would occur. In addition, concurrent construction of these projects could create traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways. Access to adjacent land uses and streets for both general traffic and emergency vehicles could be disrupted.

Potentially significant cumulative traffic and transportation access and facility impacts of the type described above could occur along the regional transportation corridors and identified truck routes, in the vicinity of the Project site. Such impacts also would be expected along local arterial and neighborhood roadways connecting regional thoroughfares with specific project construction sites.

As detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project, including Standard Construction Specification 01 55 26, Traffic Regulation, which requires the preparation of a Traffic Control Plan. This Traffic Control Plan would reduce the Project's safety hazards, emergency access, and bicycle and pedestrian facilities impacts. Therefore, in the unexpected event that there is an overlap in projects, the Project's contribution to construction-related transportation impacts would not be cumulatively considerable and would be less than significant.

**c. Less than Significant with Mitigation Incorporated.**

As described in the document above, the Project has the potential to cause significant impacts related to Transportation, Cultural Resources, and Tribal Cultural Resources. Mitigation measures have been identified that would reduce environmental impacts to these resources to less than significant levels.

In addition, as detailed in the Project Description, a number of EBMUD standard practices and procedures, applicable to all EBMUD projects, have been incorporated into the Project. For impacts related to Aesthetics, Air Quality, Biological Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, and Utilities and Service Systems, the relevant EBMUD standard practices and procedures discussed in the MND ensure that impacts would be less than significant.

Thus, as a result of the measures incorporated into the Project, the Project would not have any environmental effects which will cause substantial adverse effects on human beings.

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# APPENDIX A

# MITIGATION MONITORING AND REPORTING PROGRAM

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**APPENDIX A**
**MITIGATION MONITORING AND REPORTING PROGRAM**

| Impact Area | Mitigation Measure | Responsible for Implementation | Responsible for Monitoring and/or Enforcement | Timing of Implementation |
|---|---|---|---|---|
| **Transportation** | | | | |
| **Impact Transportation a):** Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. | **Mitigation Measure TRA-1: Road 20 Crosswalk Access.** Construction of the off-site storm drain installation along Road 20 shall be phased such that at least one crosswalk on Road 20 at Abella Circle adjacent to Walter T. Helms Middle School is accessible at any given time. Pedestrian access plans shall be reviewed and approved by the City of San Pablo prior to construction and included in the Project's Traffic Control Plan. | EBMUD and EBMUD's Construction Contractor | EBMUD | Prior to and during construction |
| | **Mitigation Measure TRA-2: Temporary Road 20 Centerline Adjustment and Line 76 Rerouting.** EBMUD shall coordinate with the City of San Pablo to the extent feasible for the temporary adjustment of the centerline on Road 20 at the signalized intersection with El Portal Drive during the closure of the Road 20-El Portal Drive through-connection to provide adequate space for transit vehicles traveling eastbound on Road 20 to turn right onto El Portal Drive and for transit vehicles traveling northbound on El Portal Drive to turn left onto Road 20. EBMUD shall coordinate with AC Transit for the temporary rerouting of eastbound Line 76 during the closure of the Road 20-El Portal Drive through-connection. Centerline adjustment and transit rerouting plans shall be reviewed and approved by the City of San Pablo and reviewed by AC Transit prior to construction and included in the Project's Traffic Control Plan. | EBMUD and EBMUD's Construction Contractor | EBMUD | Prior to and during construction |
| | **Mitigation Measure TRA-3: Road 20 Temporary Bus Stop Relocation.** EBMUD shall coordinate with AC Transit and the City of San Pablo, to the extent feasible, to temporarily relocate the eastbound bus stop on the east side of the Road 20/Abella Circle intersection as needed while construction occurs on the roadway segment that includes the existing bus stop. Any parking obstruction, sidewalk obstruction, travel lane obstruction, or other accommodation required for the temporary bus stop shall be reviewed and approved by the City of San Pablo and reviewed by AC Transit prior to construction and included in the Project's Traffic Control Plan. | EBMUD and EBMUD's Construction Contractor | EBMUD | Prior to and during construction |
| | **Mitigation Measure TRA-4: Construction Truck Travel Restriction.** EBMUD shall coordinate with Walter T. Helms Middle School to restrict construction truck traffic (e.g., material delivery and haul trucks) during the 30 minutes immediately preceding and 30 minutes immediately following the morning and afternoon bell times when school is in regular session, as well as around other major events (e.g., sporting events, parent-teacher conferences) that would bring a substantial number of people to campus. Bell times and other major events affecting the period of construction truck travel shall be documented in the Project's Traffic Control Plan. | EBMUD and EBMUD's Construction Contractor | EBMUD | Prior to and during construction |

| Impact Area | Mitigation Measure | Responsible for Implementation | Responsible for Monitoring and/or Enforcement | Timing of Implementation |
|---|---|---|---|---|
| **Cultural Resources** | | | | |
| **Impact Cultural Resources b):** Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5. | **CR-1: Periodic Archaeological Inspections and Construction Monitoring**. During ground-disturbing phases of Project construction (initial excavation and grading, suction and discharge pipeline construction, on-site drainage construction, and Road 20 storm drain pipeline installation), a Native American monitor and a qualified archaeologist shall visit the site two times per week to inspect unexcavated sediments and soils (i.e., intact soils along trench walls and excavations) for any sign of potential archaeological deposits. If the Native American monitor and archaeologist have observed excavation to a final depth in sufficient areas to adequately characterize the Project site and the underlying sediments appear disturbed or other evidence to suggest that archaeological deposits are highly unlikely, the Native American monitor and qualified archaeologist may cease bi-weekly inspections, in consultation with EBMUD.<br>If during bi-weekly inspections the Native American monitor and archaeologist identify sensitive intact sediments that are likely to contain archaeological deposits, ground-disturbing activities shall be halted, and the qualified archaeologist shall develop an appropriate Archaeological Monitoring Plan in consultation with the Native American monitor and EBMUD. Depending on the type and condition of the sediments, the Archaeological Monitoring Plan may include, but not be limited to, increased frequency of periodic archaeological inspections, full-time archaeological construction monitoring, or presence/absence testing in areas of heightened archaeological sensitivity. The Archaeological Monitoring Plan shall detail the methods, schedule, and thresholds for returning to bi-weekly archaeological inspections. | EBMUD and EBMUD's Construction Contractor | EBMUD | For the duration of ground-disturbing phases of Project construction |
| **Impact Cultural Resources c):** Disturb any human remains, including those interred outside of formal cemeteries. | **CR-1: Periodic Archaeological Inspections and Construction Monitoring**. (Details as listed under Impact Air Quality b)) | EBMUD and EBMUD's Construction Contractor | EBMUD | For the duration of ground-disturbing phases of Project construction |
| **Tribal Cultural Resources** | | | | |
| **Impact Tribal Cultural Resources a):** ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in | **CR-1: Periodic Archaeological Inspections and Construction Monitoring**. (Details as listed under Impact Air Quality b)) | EBMUD and EBMUD's Construction Contractor | EBMUD | For the duration of ground-disturbing phases of Project construction |

| Impact Area | Mitigation Measure | Responsible for Implementation | Responsible for Monitoring and/or Enforcement | Timing of Implementation |
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| subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe | | | | |

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# APPENDIX B

# EBMUD PRACTICES AND PROCEDURES MONITORING AND REPORTING PLAN

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**APPENDIX B**
**EBMUD PRACTICES AND PROCEDURES MONITORING AND REPORTING PLAN**

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
|---|---|---|---|---|
| **Aesthetics** | | | | |
| **Aesthetics d):** Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 3.4, Lighting Used During Nighttime Work*<br>A. Ensure that temporary stationary lighting used during nighttime construction is only used when needed. All lighting used for nighttime construction shall be designed, installed, and operated to minimize glare that affects traffic near the work zone or that causes annoyance or discomfort for residences near the work zone. Lighting fixtures shall be located and aimed to provide the required level of illumination and uniformity in the work zone without the creation of unnecessary glare. | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |
| **Air Quality** | | | | |
| **Air Quality a):** Conflict with or obstruct implementation of the applicable air quality plan**.** | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 1.3.E, Dust Control and Monitoring Plan*<br>1. Submit a plan detailing the means and methods for controlling and monitoring dust generated by demolition and other work on the site for the Engineer's acceptance prior to any work at the jobsite. The plan shall comply with all applicable regulations including but not limited to the Bay Area Air Quality Management District (BAAQMD) visible emissions regulation and Public Nuisance Rule. The plan shall include items such as mitigation measures to control fugitive dust emissions generated by construction activities. The Plan shall outline best management practices for preventing dust emissions, provide guidelines for training of employees, and procedures to be used during operations and maintenance activities. The plan shall also include measures for the control of paint overspray generated during the painting of exterior surfaces. The plan shall detail the equipment and methods used to monitor compliance with the plan. The handling and disposal of water used in compliance with the Dust Control Plan shall be addressed in the Water Control and Disposal Plan.<br>2. Containment, as described in Article 3.3, shall be utilized during any abrasive blasting of the exterior of structures.<br>*Section 3.3., Dust Control and Monitoring*<br>B. Dust Control<br>1. Contractor shall implement all necessary dust control measures, including but not limited to the following: | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
|---|---|---|---|---|
| | a. All exposed surfaces with the potential of dust-generating shall be watered at least twice daily, or be covered with coarse rock, or as directed by the Engineer to reduce the potential for airborne dust from leaving the site.<br>b. The simultaneous occurrence of more than two ground disturbing construction phases on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time, as appropriate.<br>c. Cover all haul trucks entering/leaving the site and trim their loads as necessary.<br>d. Using wet power vacuum street sweepers to:<br>*1)* Sweep all paved access road, parking areas and staging areas at the construction site daily or as often as necessary.<br>*2)* Sweep public roads adjacent to the site at least twice daily or as often as necessary.<br>e. The use of dry power sweeping is prohibited.<br>f. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.<br>g. Gravel or apply non-toxic soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.<br>h. Water and/or cover soil stockpiles daily.<br>i. Site accesses to a distance of 100 feet from the paved road shall be treated with 12-inches layer of compacted coarse rock.<br>j. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.<br>k. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.<br>l. Building pads shall be laid as soon as possible after grading.<br>m. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.<br>n. Wind breaks (e.g., fences) shall be installed on the windward sides(s) of actively disturbed areas of construction. Wind breaks should have a maximum 50 percent air porosity.<br>o. All vehicle speeds shall be limited to fifteen (15) mph or less on the construction site and any adjacent unpaved roads.<br>C. Dust Monitoring During Demolition and Construction<br>1. Provide air monitoring per the Dust Control and Monitoring Plan along the perimeter of the job site. A minimum of 4 stations, one on each side of the District | | | |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
|---|---|---|---|---|
| | property, shall be established, capable of continuous measurement of total particulate concentration when any dust generating activity is occurring.<br>a. Ringelmann No. 1 Limitation: Contractor shall not emit from any source for a period or periods aggregating more than three minutes in any hour, a visible emission which is as dark or darker than No. 1 on the Ringelmann Chart, or of such opacity as to obscure an observer's view to an equivalent or greater degree.<br>b. Opacity Limitation: Contractor shall not emit from any source for a period or periods aggregating more than three minutes in an hour an emission equal to or greater than 20% opacity as perceived by an opacity sensing device, where such device is required by Air Quality Management District regulations.<br>c. All environmental and personal air sampling equipment shall be in conformance with the Association of Industrial Hygiene and National Institute of Safety and Health (NIOSH) standards.<br>d. All analysis shall be completed by a California Department of Health Services certified laboratory for the specific parameters of interest.<br>e. The Contractor shall provide to the Engineer, within 72 hours of sampling all test results.<br>D. The dust control system shall comply with the Dust Control and Monitoring Plan, the requirements of this section, and any applicable laws and regulations<br>*Section 3.5., Emissions Control*<br>A. Air Quality and Emissions Control<br>1. The Contractor shall ensure that line power is used instead of diesel generators at all construction sites where line power is available.<br>2. The Contractor shall ensure that for operation of any stationary, compression-ignition engines as part of construction, comply with Section 93115, Title 17, California Code of Regulations, Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines, which specifies fuel and fuel additive requirements as well as emission standards.<br>3. Fixed temporary sources of air emissions (such as portable pumps, compressors, generators, etc.) shall be electrically powered unless the Contractor submits documentation and receives approval from the Engineer that the use of such equipment is not practical, feasible, or available. All portable engines and equipment units used as part of construction shall be properly registered with the California Air Resources Board or otherwise permitted by the appropriate local air district, as required.<br>4. Contractor shall implement standard air emissions controls such as:<br>a. Minimize the use of diesel generators where possible.<br>b. 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 | | | |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| | California Code of Regulations. Clear signage shall be provided for construction workers at all access points.<br>c. Follow applicable regulations for fuel, fuel additives, and emission standards for stationary, diesel-fueled engines.<br>d. Locate generators at least 100 feet away from adjacent homes and ball fields.<br>e. Perform regular low-emission tune-ups on all construction equipment, particularly haul trucks and earthwork equipment.<br>5. Contractor shall implement the following measures to reduce greenhouse gas emissions from fuel combustion:<br>a. On road and off-road vehicle tire pressures shall be maintained to manufacturer specifications. Tires shall be checked and re-inflated at regular intervals.<br>b. Construction equipment engines shall be maintained to manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.<br>c. All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of Oxide of Nitrogen (NOx) and Particulate Matter (PM).<br>d. Demolition debris shall be recycled for reuse to the extent feasible. See the Construction and Demolition Waste Disposal Plan paragraphs above for requirements on wood treated with preservatives.<br>B. Architectural Coatings<br>1. Architectural coatings used shall comply with appropriate Volatile Organic Compound limits as established in the Bay Area Air Quality Management District's Regulation 8, Rule 3 and/or the San Joaquin Valley Air Pollution Control District's Regulation IV, Rule 4601, and any amendments thereto. | | | |
| **Air Quality 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. | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 3.5.A, Air Quality and Emissions Control* (Details as listed under Impact Air Quality a)<br>*Section 3.5.B, Architectural Coatings* (Details as listed under Impact Air Quality a) | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |
| **Air Quality c):** Expose sensitive receptors to substantial pollutant concentrations. | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 3.5.A, Air Quality and Emissions Control* (Details as listed under Impact Air Quality a) | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| **Air Quality d):** Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 1.3.I, Tune-up Logs*<br>1. The Contractor shall submit a log of required tune-ups for all construction equipment, particularly haul and delivery trucks, on a quarterly basis for review.<br>*Section 3.5.A, Air Quality and Emissions Control* (Details as listed under Impact Air Quality a) | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |
| **Biological Resources** | | | | |
| **Biological Resources a):** Have a substantial adverse impact, 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 Dept. of Fish & Game or U.S. Fish & Wildlife Service. | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 3.9, Protection of Birds Protected Under the Migratory Bird Treaty Act and Roosting Bats*<br>A. The District will conduct biological reconnaissance in advance of construction and will conduct biologic monitoring during construction as necessary.<br>B. Protected Species<br>1. If protected species or suitable habitat for protected species is found during biological reconnaissance surveys:<br>a. Before beginning construction, all Contractor construction personnel are required to attend an environmental training program provided by the District of up to one-day for site supervisors, foreman and project managers, and up to 30-minutes for non-supervisory contractor personnel. The training program will be completed in person or by watching a video at a District-designated location, conducted by a qualified biologist provided by the District. The program will discuss all sensitive habitats and sensitive species that may occur within the project work limits, including the responsibilities of Contractor's construction personnel, applicable mitigation measures, and notification requirements. The Contractor is responsible for ensuring that all workers requiring training are identified to the District. Prior to accessing or performing construction work, all Contractor personnel shall:<br>1) Sign a wallet card provided by the Engineer verifying that all Contractor construction personnel have attended the appropriate level of training relative to their position; have read and understood the contents of the environmental training: and shall comply with all project environmental requirements.<br>2) Display an environmental training hard hat decal (provided by the District after completion of the training) at all times.<br>b. Birds Protected under the Migratory Bird Treaty Act (MBTA):<br>1) It is unlawful to pursue, hunt, take, capture, or kill any migratory bird without a permit issued by the U.S. Department of the Interior. | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| | 2) If construction commences between February 1 and August 31, during the nesting season, the District will conduct a preconstruction survey for nesting birds within 7 days prior to construction to ensure that no nest will be disturbed during construction.<br>3) If active nests of migratory bird species (listed in the MBTA) are found within the project site, or in areas subject to disturbance from construction activities, an avoidance buffer to avoid nest disturbance shall be constructed. The buffer size will be determined by the District in consultation with California Department of Fish and Wildlife (CDFW) and is based on the nest location, topography, cover and species' tolerance to disturbance.<br>4) If an avoidance buffer is not achievable, a qualified biologist provided by the District will monitor the nest(s) to document that no take of the nest (nest failure) has occurred. Active nests shall not be taken or destroyed under the MBTA and, for raptors, under the CDFW Code. If it is determined that construction activity is resulting in nest disturbance, work should cease immediately, and the Contractor shall notify the Engineer who will consult with the qualified biologist and appropriate regulatory agencies.<br>5) If preconstruction surveys indicate that nests are inactive or potential habitat is unoccupied during the construction period, no further action is required. Trees and shrubs within the construction footprint that have been determined to be unoccupied by special-status birds or that are located outside the avoidance buffer for active nests may be removed. Nests initiated during construction (while significant disturbance from construction activities persist) may be presumed to be unaffected, and only a minimal buffer, determined by District's biologist, would be necessary. | | | |
| **Cultural Resources** | | | | |
| **Cultural Resources b):** Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5? | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 3.10, Protection of Cultural and Paleontological Resources*<br>A. Confidentiality of Information on Cultural and Paleontological Resources<br>1. In conjunction with Contractor's performance under this contract, the Contractor may obtain information as to the location and/or nature of certain cultural or paleontological resources, including Native American artifacts and remains. This information may be provided to the Contractor by the District or a third party or may be discovered directly by the Contractor through its performance under the contract. All such information shall be considered "Confidential Information" for the purposes of this Article.<br>2. Pursuant to California Government Code Section 6254.10, cultural resource information is protected from public disclosure. The Contractor agrees that the | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| | Contractor, its subcontractors, and their respective agents and employees shall not publish or disclose any Confidential Information to any person, unless specifically authorized in advance, in writing by the Engineer.<br>B. Conform to the requirements of statutes as they relate to the protection and preservation of cultural and paleontological resources. Unauthorized collection of prehistoric or historic artifacts or fossils along the Work Area, or at Work facilities, is strictly prohibited.<br>C. Before beginning construction, all Contractor construction personnel shall attend a cultural and paleontological resources training course provided by the District of up to two hours for site supervisors, foreman, project managers, and non-supervisory contractor personnel. The training program will be completed in person or by watching a video, at a District designated location, conducted by a qualified archaeologist and/or paleontologist provided by the District, or by District staff. The program will discuss cultural and paleontological resources awareness within the project work limits, including the responsibilities of Contractor's construction personnel, applicable mitigation measures, confidentiality, and notification requirements. The Contractor is responsible for ensuring that all workers requiring training are identified to the District. Prior to accessing the construction site, or performing site work, all Contractor personnel shall:<br>1. Sign an attendance sheet provided by the Engineer verifying that all Contractor construction personnel have attended the appropriate level of training; have read and understood the contents of the training; have read and understood the contents of the "Confidentiality of Information on Cultural and Paleontological" and shall comply with all project environmental requirements.<br>D. In the event that potential cultural or paleontological resources are discovered at the site of construction, the following procedures shall be instituted:<br>1. Discovery of prehistoric or historic-era archaeological resources requires that all construction activities shall immediately cease at the location of discovery and within 100 feet of the discovery.<br>a. The Contractor shall immediately notify the Engineer who will engage a qualified archaeologist provided by the District to evaluate the find. The Contractor is responsible for stopping work and notifying the Engineer and shall not recommence work until authorized to do so by the Engineer.<br>b. The District will retain a qualified archaeologist to inspect the findings within 24 hours of discovery. If it is determined that the Project could damage a historical resource as defined by CEQA (or a historic property as defined by the National Historic Preservation Act of 1966, as amended), construction shall cease in an area determined by the archaeologist until a management plan has been prepared, approved by the District, and implemented to the satisfaction of the archaeologist (and Native American representative if the resource is prehistoric, who shall be identified by the Native American Heritage Commission [NAHC]). In consultation with the District, the | | | |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| | archaeologist (and Native American representative) will determine when construction can resume.<br>2. Discovery of human remains requires that all construction activities immediately cease at, and within 100 feet of the location of discovery.<br>a. The Contractor shall immediately notify the Engineer who will engage a qualified archaeologist provided by the District to evaluate the find. The Contractor is responsible for stopping work and notifying the Engineer and shall not recommence work until authorized to do so by the Engineer.<br>b. The District will contact the County Coroner, who will determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner will contact the Native American Heritage Commission (NAHC). The NAHC will then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn would make recommendations to the District for the appropriate means of treating the human remains and any associated funerary objects.<br>3. Discovery of paleontological resources requires that all construction activities immediately cease at, and within 100 feet of the location of discovery.<br>a. The Contractor shall immediately notify the Engineer who will engage a qualified paleontologist provided by the District to evaluate the find. The Contractor is responsible for stopping work and notifying the Engineer and shall not recommence work until authorized to do so by the Engineer.<br>b. The District will retain a qualified paleontologist to inspect the findings within 24 hours of discovery. The qualified paleontologist, in accordance with Society of Vertebrate Paleontology guidelines (Society of Vertebrate Paleontology 2010), will assess the nature and importance of the find and recommend appropriate salvage, treatment, and future monitoring and management. If it is determined that construction activities could damage a paleontological resource as defined by the Society of Vertebrate Paleontology guidelines (Society of Vertebrate Paleontology 2010), construction shall cease in an area determined by the paleontologist until a salvage, treatment, and future monitoring and management plan has been prepared, approved by the District, and implemented to the satisfaction of the paleontologist. In consultation with the paleontologist, the District will determine when construction can resume.<br>E. If the District determines that the find requires further evaluation, at the direction of Engineer, the Contractor shall suspend all construction activities at the location of the find and within a larger radius, as required. | | | |
| **Cultural Resources c):** Disturb any human remains, including those | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements** | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| interred outside of formal cemeteries? | *Section 3.10, Protection of Cultural and Paleontological Resources* (Details as listed under Impact Cultural Resources b) | | | |
| **Energy** | | | | |
| **Energy a):** Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation? | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 3.5.A, Air Quality and Emissions Control* (Details as listed under Impact Air Quality a) | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |
| **Geology and Soils** | | | | |
| **Geology and Soils a):** Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:<br>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.<br>ii. Strong seismic ground shaking?<br>iii. Seismic-related ground failure, including liquefaction?<br>iv. Landslides? | **EBMUD's Pumping Plant Design Guide**<br>EBMUD's Pumping Plant Design Guide establishes the minimum requirements to follow in the design of EBMUD drinking water pumping plants. The Pumping Plant Design Guide details design criteria, conditions for PPs, outlines applicable codes and design standards, and requires the completion of a geotechnical investigation during design and incorporation of geotechnical design recommendations in project plans and specifications.<br><br>**EBMUD's Engineering Standard Practice 550.1, Seismic Design Requirements and 512.1, Water Main and Services Design Criteria**<br>EBMUD uses two primary Engineering Standard Practices for the design of water pipelines in its distribution system to address geologic hazards. Engineering Standard Practice 512.1, Water Main and Services Design Criteria, establishes basic criteria for the design of water pipelines and establishes minimum requirements for pipeline construction materials. Engineering Standard Practice 550.1, Seismic Design Requirements, addresses seismic design of the pipelines to withstand seismic hazards, including fault rupture, ground shaking, liquefaction-related phenomena, landslides, seiches and tsunamis and requires that EBMUD establish project-specific seismic design criteria for pipelines with a diameter of greater than 12 inches. Engineering Standard Practice 550.1, Seismic Design Requirements, includes basic requirements for structures and design standard for structures to withstand seismic hazards including compliance with applicable seismic design standards found in the latest editions of the California Building Code and American Society of Civil Engineers 7, Minimum Design Loads for Buildings and Other Structures. | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| **Geology and Soils b):** Result in substantial soil erosion or the loss of topsoil? | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 1.1.B, Site Activities*<br>B. Site Activities<br>1. No debris including, but not limited to, demolition material, treated wood waste, stockpile leachate, soil, silt, sand, bark, slash, sawdust, asphalt, rubbish, paint, oil, cement, concrete or washings thereof, oil or petroleum products, or other organic or earthen materials from construction activities shall be allowed to enter into storm drains or surface waters or be placed where it may be washed by rainfall or runoff outside the construction limits. When operations are completed, excess materials or debris shall be removed from the work area as specified in the Construction and Demolition Waste Disposal Plan.<br>2. Excess material shall be disposed of in locations approved by the Engineer consistent with all applicable legal requirements and disposal facility permits.<br>3. Do not create a nuisance or pollution as defined in the California Water Code. Do not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Board or the State Water Resources Control Board, as required by the Clean Water Act.<br>4. Clean up all spills and immediately notify the Engineer in the event of a spill.<br>5. Stationary equipment such as motors, pumps, and generators, shall be equipped with drip pans.<br>6. Divert or otherwise control surface water and waters flowing from existing projects, structures, or surrounding areas from coming onto the work and staging areas. The method of diversions or control shall be adequate to ensure the safety of stored materials and of personnel using these areas. Following completion of Work, ditches, dikes, or other ground alterations made by the Contractor shall be removed and the ground surfaces shall be returned to their former condition, or as near as practicable, in the Engineer's opinion.<br>7. Maintain construction sites to ensure that drainage from these sites will minimize erosion of stockpiled or stored materials and the adjacent native soil material.<br>8. Furnish all labor, equipment, and means required and shall carry out effective measures wherever, and as often as necessary, to prevent Contractor's operations from causing visible dust emissions to leave the work areas. These measures shall include, but are not limited to, providing additional watering equipment, reducing vehicle speeds on haul roads, restricting traffic on haul roads, covering haul vehicles, and applying a dust palliative to well-traveled haul roads. The Contractor shall provide the specifications of the dust palliative for Engineer approval prior to use. The Contractor shall be responsible for damage resulting from dust originating from its operations. The dust abatement measures shall be continued for the duration of the Contract. Water the site in the morning and evening, and as often as necessary, and clean vehicles leaving the site as | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| | necessary to prevent the transportation of dust and dirt onto public roads. Dust control involving water shall be done in such a manner as to minimize waste and runoff from the site.<br>9. Construction staging areas shall be graded, or otherwise protected with Best Management Practices (BMPs), to contain surface runoff so that contaminants such as oil, grease, and fuel products do not drain towards receiving waters including wetlands, drainages, and creeks.<br>10. All construction equipment shall be properly serviced and maintained in good operating condition to reduce emissions. Contractor shall make copies of equipment service logs available upon request.<br>11. Any chemical or hazardous material used in the performance of the Work shall be handled, stored, applied, and disposed of in a manner consistent with all applicable federal, state, and local laws and regulations.<br>12. Contaminated materials excavated and/or removed from the construction area shall be disposed of in a manner consistent with all applicable local, state, and federal laws and regulations.<br>*Section 1.3.A, Storm Water Management*<br>A. Storm Water Management<br>1. Construction General Permit<br>a. The Contractor shall create a user account on the SWRCB's Storm Water Multi-Application & Report Tracking System (SMARTS). The Engineer will link the Contractor to the District's account as a Data Submitter. The Contractor shall prepare and upload to SMARTS Permit Registration Documents (PRDs), including, but not limited to, a Notice of Intent, a Site Specific Risk Assessment, a Site Map, and a Storm Water Pollution Prevention Plan (SWPPP) for the Engineer's review which meets the requirements of the SWRCB, for coverage under the General Construction Stormwater Permit (Order No. 2009-0009-DWQ) and amendments thereto. Upon acceptance by the Engineer, the Engineer will electronically certify and file the PRDs to gain permit coverage and the Contractor shall submit the registration and the subsequent annual fees as required by the SWRCB.<br>b. The Contractor shall be responsible for complying with the requirements of the Construction General Permit. The Contractor's responsibilities include, but are not limited to, providing qualified professionals as described in the permit to prepare and certify all permit-required documents/submittals and to implement effective stormwater/non-stormwater management practices, and conducting inspections and monitoring as required by the permit. The Contractor shall, in compliance with the permit, prepare and upload to SMARTS all required documents, photos, data, and/or reports (including the Annual Reports) and ensure permit coverage termination upon construction completion by preparing a Notice of Termination on SMARTS. The Contractor | | | |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| | shall inform the Engineer when documents/reports are available on SMARTS for Engineer certification and submittal.<br>2. Storm Water Pollution Prevention Plan<br>a. Submit a Stormwater Pollution Prevention Plan that describes measures that shall be implemented to prevent the discharge of contaminated storm water runoff from the jobsite. Contaminants to be addressed include, but are not limited to, soil, sediment, concrete residue, pH less than 6.5 or greater than 8.5, and chlorine residual and all other contaminants known to exist at the jobsite location as described in Document 00 31 24 - Material Assessment Information.<br>*Section 3.3., Dust Control and Monitoring* (Details as listed under Impact Air Quality a)<br>**EBMUD's Pumping Plant Design Guide**<br>(Details as listed under Impact Geology and Soils a) | | | |
| **Geology and Soils c):** Be located on strata 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? | **EBMUD's Standard Construction Specification 01 35 24, Project Safety Requirements**<br>*Section 1.3.K, Excavation Safety Plan*<br>1. Section 6705 of the Labor Code requires that the excavation of any trench 5 feet or more in depth shall not begin until the Contractor has received from the Engineer notification of the Engineer's acceptance of the Contractor's detailed plan for worker protection from the hazards of caving ground during the excavation of such trench.<br>a. The plan shall show the details of the design of shoring, bracing, sloping or other provisions to be made for worker protection during such excavation.<br>b. The plan shall meet the requirements of the Construction Safety Orders, Title 8, California Code of Regulations.<br>2. Contractor shall obtain an excavation permit per Cal/OSHA Title 8, CCR § 341(a)(1).<br>3. California Government Code § 4216 describes the requirements and procedures for excavation notifications and utility excavation. | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |
| **Geology and Soils d):** Be located on expansive soil as defined in Table 18-1-B of the Uniform Building Code 1994, creating substantial risks to life or property? | **EBMUD's Engineering Standard Practice 550.1, Seismic Design Requirements and 512.1, Water Main and Services Design Criteria** (Details as listed under Geology and Soils a) | | | |
| **Geology and Soils f):** Directly or indirectly destroy a unique paleontological resource | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 3.10, Protection of Cultural and Paleontological Resources* (Details as listed under Impact Cultural Resources a) | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| or site or unique geological feature? | | | | |
| **Greenhouse Gas Emissions** | | | | |
| **Greenhouse Gas Emissions a):** Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 3.5.A, Air Quality and Emissions Control* (Details as listed under Impact Air Quality a) | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |
| **Greenhouse Gas Emissions b):** Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 3.5.A, Air Quality and Emissions Control* (Details as listed under Impact Air Quality a) | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |
| **Hazards and Hazardous Materials** | | | | |
| **Hazards and Hazardous Materials a and b):** Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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? | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 1.3.A.2, Storm Water Pollution Prevention Plan*<br>2. Storm Water Pollution Prevention Plan<br>a. Submit a Stormwater Pollution Prevention Plan that describes measures that shall be implemented to prevent the discharge of contaminated storm water runoff from the jobsite. Contaminants to be addressed include, but are not limited to, soil, sediment, concrete residue, pH less than 6.5 or greater than 8.5, and chlorine residual and all other contaminants known to exist at the jobsite location as described in Document 00 31 24 - Material Assessment Information.<br>*Section 1.3.B, Water Control and Disposal Plan*<br>B. Water Control and Disposal Plan<br>1. The Contractor shall submit a detailed Water Control and Disposal Plan for the Engineer's acceptance prior to any work at the jobsite.<br>a. Plan shall comply with all requirements of the Specification and applicable discharge permits. Table 1 summarizes discharge permits that may be applicable to District projects. | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| | b. Contractor shall maintain proper control of the discharge at the discharge point to prevent erosion, scouring of bank, nuisance, contamination, and excess sedimentation in the receiving waters.<br>2. Drinking Water System Discharges<br>a. Plan shall include the estimated flow rate and volume of all proposed discharges to surface waters, including discharges to storm drains. All receiving waters shall be clearly identified.<br>b. Contractor shall track all discharges directly to a surface water body or a storm drain system that drains to a surface water body. A record consisting of discharge locations and volumes shall be submitted to the Engineer prior to Contract Acceptance.<br>c. A monitoring program is required for drinking water system discharges greater than 325,850 gallons in conformance with Attachment E, Monitoring and Reporting Program, of the General Drinking Water Discharges Permit, when the water will be discharged either directly into a surface water body or a storm drain system that drains to a surface water body. A record consisting of discharge locations, volumes and Water Quality (WQ) data shall be submitted to the Engineer. The Planned Discharge Tracking Form, attached to the end of this section, may be used to fulfill this requirement. All monitoring results shall be submitted to the Engineer prior to Contract Acceptance.<br>1. Contractor shall notify the Engineer, at least one week prior to the start of a planned discharge equal to or greater than 325,850 gallons, of the following:<br>a) The discharge start date;<br>b) The discharge location and the applicable receiving water;<br>c) The flow rate and volume to be discharged; and<br>d) The reason(s) for discharge.<br>d. Contractor shall dechlorinate all drinking water system discharges to achieve a total chlorine residual concentration of < 0.1 mg/L measured with a handheld chlorine meter utilizing a US EPA approved method and provide effective erosion & sediment control to achieve a visual turbidity concentration of ≤ 100 NTU by implementing BMPs which meet the District minimum standards (see Figure 1 attached to the end of this section) or better.<br>e. Instead of discharging to surface waters, where feasible, Contractor shall beneficially reuse water derived from drinking water systems as defined in the General Drinking Water Discharges Permit. Potential reuse strategies include, but are not limited to, landscape irrigation, agricultural irrigation, dust control, and discharge to stormwater capture basins or other groundwater recharge systems. Contractor shall do so without impacting property or the | | | |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| | environment. Contractor shall provide a record of reuse location(s) and volume(s) and submit it to the Engineer prior to Contract Acceptance.<br>f. Contractor shall ensure that the pH level of any discharges shall not be depressed below 6.5, nor elevated above 8.5. If there is potential for discharges to be below 6.5 or above 8.5, Contractor shall employ pH adjustment best management practices to ensure discharges are within the range of 6.5 and 8.5. Contractor shall conduct onsite field measurements for pH per quality assurance and quality control (QA/QC) protocol that conform to U.S. EPA guidelines, or procedures approved by the American Water Works Association or other professional drinking water industry association. Contractor shall submit all monitoring results to the Engineer prior to Contract Acceptance.<br>3. Non-Stormwater Discharges<br>a. Plan shall describe measures for containment, handling, treatment (as necessary), and disposal of discharges such as groundwater (if encountered), runoff of water used for dust control, stockpile leachate, tank heel water, wash water, sawcut slurry, test water and construction water or other liquid that has been in contact with any interior surfaces of District facilities. Contractor shall provide the Engineer with containment, handling, treatment and disposal designs and a sampling & analysis plan for approval before commencing the Work. Sampling and analysis shall be in conformance with Sections 1.3 (K) Analytical Test Results and 3.1 SAMPLING AND ANALYSIS.<br>4. Sanitary Sewer Discharges<br>a. It is District policy to send superchlorinated discharges from pipeline disinfection to the sanitary sewer system. Plan shall include a sampling and analytical program for superchlorinated discharges in conformance with the Sanitary Sewer Discharge Permit. All monitoring results shall be submitted to the Engineer prior to the end of the Work.<br>b. Obtain and provide to the Engineer documentation from the agency (e.g., wastewater treatment plant, local sewer owner) having jurisdiction, authorizing the Contractor to dispose of the liquid and describing the method of disposal. Discharges destined for the District's main wastewater treatment plant in Oakland can reference Special Discharge Permit (SDP) #50333261, issued to the District's Regulatory Compliance Office, when obtaining authorization from the pertinent local jurisdiction that owns the sewers to be used. Contractor shall, prior to the end of the Work, report to the Engineer the volumes of all discharges performed pursuant to the said SDP along with copies of any profile forms and/or correspondence between Contractor and disposal facility.<br>*Section 1.3.C, Construction and Demolition Waste*<br>C. Construction and Demolition Waste Disposal Plan | | | |

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| | 1. Prepare a Construction and Demolition Waste Disposal Plan and submit a copy of the plan for the Engineer's acceptance prior to disposing of any material (except for water wastes which shall be addressed in the Water Control and Disposal Plan).<br>a. The plan shall identify how the Contractor will remove, handle, transport, and dispose of all materials required to be removed under this contract in a safe, appropriate, and lawful manner in compliance with all applicable regulations of local, state, and federal agencies having jurisdiction over the disposal of removed materials.<br>b. The Contractor shall procure the necessary permits required by the local, state, and federal agencies having jurisdiction over the handling, transportation, and disposal of construction and demolition waste.<br>c. Include a list of reuse facilities, recycling facilities and processing facilities that will be receiving recovered materials.<br>d. Identify materials that are not recyclable or not recovered which will be disposed of in a landfill (or other means acceptable by the State of California and local ordinance and regulations).<br>e. Identify how the Contractor will comply with The California Department of Toxic Substances Control's (DTSC) Alternative Management Strategies (AMS) when handling and disposing of treated wood waste (TWW) in compliance with 22 CCR 66261.9.5.<br>f. TWW records including but not limited to manifests, bills of lading should be submitted to the Engineer within 5 working days of off-haul. Records should include: (1) name and address of the TWW facility to which the TWW was sent; (2) estimated weight of TWW, or the weight of the TWW as measured by the receiving TWW facility; and (3) date of the shipment of TWW. (Cal. Code Regs., tit. 22, §§ 67386.8(a) and (e)(1)).<br>g. List the permitted landfill, or other permitted disposal facilities, that will be accepting the disposed waste materials.<br>h. Identify each type of waste material to be reused, recycled or disposed of and estimate the amount, by weight.<br>i. Plan shall include the sampling and analytical program for characterization of any waste material, as needed, prior to reuse, recycle or disposal.<br>2. Materials or wastes shall only be recycled, reused, reclaimed, or disposed of at facilities approved of by the District.<br>3. Submit permission to reuse, recycle, reclaim, or dispose of material from reuse, recycling, reclamation, or disposal site owner along with any other information needed by the District to evaluate the acceptability of the proposed reuse, recycling, or disposal site and obtain acceptance of the Engineer prior to removing any material from the project site.<br>4. All information pertinent to the characterization of the material or waste shall be disclosed to the District and the reuse, recycling, reclamation, or disposal facility. | | | |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| | Submit copies of any profile forms and/or correspondence between the Contractor and the reuse, recycling, reclamation, or disposal facility.<br>5. Submit name and Environmental Laboratory Accreditation Program Certificate number of laboratory that will analyze samples for suspected hazardous substances. Include statement of laboratory's certified testing areas and analyses that laboratory is qualified to perform. Submit prior to any laboratory testing.<br>*Section 1.3.D, Spill Prevention and Response Plan*<br>D. Spill Prevention and Response Plan<br>1. Submit plan detailing the means and methods for preventing and controlling the spilling of known hazardous substances used on the jobsite or staging areas. The plan shall include a list of the hazardous substances proposed for use or generated by the Contractor on site, including petroleum products, and measures that will be taken to prevent spills, monitor hazardous substances, and provide immediate response to spills. Spill response measures shall address notification of the Engineer and appropriate agencies including phone numbers; spill-related worker, public health, and safety issues; spill control, and spill cleanup.<br>2. Submit a Safety Data Sheet (SDS) for each hazardous substance proposed to be used prior to delivery of the material to the jobsite<br>*Section 1.3.E, Dust Control and Monitoring Plan* (Details as listed under Impact Air Quality a)<br>**EBMUD's Standard Construction Specification 01 35 24, Project Safety Requirements**<br>*Section 1.3.B, Project Health and Safety Plan*<br>B. Project Health and Safety Plan<br>1. Submit a Project Health & Safety Plan for the Work to be performed prior to start of the Notice to commence field work (NTCFW) and/or prior to any limited notice to commence field work (LNTCFW).<br>2. The Project Health & Safety Plan shall implement applicable Title 8, California Code of Regulations for the work performed.<br>*Section 1.3.J, Electrical Safety Plan*<br>1. Submit a detailed electrical safety plan that is in accordance with NFPA 70E Article 110. The plan shall include at a minimum:<br>a. Electrical hazard potential<br>b. Electrical safety program principles per Annex E.1 of NFPA 70E<br>c. Electrical safety program controls per Annex E.2 of NFPA 70E<br>d. Electrical safety program procedures per Annex E.3 of NFPA 70E<br>e. Risk assessment and risk control procedures per Annex F of NFPA 70E<br>f. Job briefing and planning checklists per Annex I of NFPA 70E<br>g. Auditing effectiveness of project electrical safety program | | | |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| | **EBMUD's Engineering Standard Practice 514, Identifying Buried Conflicts**<br>*Section V, Requirements and Guidelines of Planning, Design, and Construction*<br>**Procedure 711, Hazardous Waste Removal** | | | |
| **Hazards and Hazardous Materials c):** Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | **EBMUD's Standard Construction Specification 01 35 24, Project Safety Requirements**<br>*Section 1.3.B, Project Health and Safety Plan* (Details as listed under Impact Hazards and Hazardous Materials a)<br>**EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 1.3.D, Spill Prevention and Response Plan* (Details as listed under Impact Hazards and Hazardous Materials a) | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |
| **Hazards and Hazardous Materials f):** Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | **EBMUD's Standard Construction Specification 01 55 26, Traffic Regulation**<br>*Section 1.2, Submittals*<br>A. Submit at least 15 calendar days prior to work a detailed traffic control plan, that is approved by all agencies having jurisdiction and that conforms to all requirements of these specifications and the most recently adopted edition of the California Manual on Uniform Control Devices. Traffic Control Plan shall include:<br>1. Circulation and detour plans to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible.<br>2. A description of emergency response vehicle access. If the road or area is completely blocked, preventing access by an emergency responder, a contingency plan must be included.<br>3. Procedures, to the extent feasible, to schedule construction of project elements to minimize overlapping construction phases that require truck hauling.<br>4. Designated Contractor staging areas for storage of all equipment and materials, in such a manner to minimize obstruction to traffic.<br>5. Locations for parking by construction workers. | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |
| **Hydrology and Water Quality** | | | | |
| **Hydrology and Water Quality a):** Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 1.3.A.2, Storm Water Pollution Prevention Plan* (Details as listed under Impact Hazards and Hazardous Materials a)<br>*Section 1.3.B, Water Control and Disposal Plan* (Details as listed under Impact Hazards and Hazardous Materials a)<br>*Section 1.3.D, Spill Prevention and Response Plan* (Details as listed under Impact Hazards and Hazardous Materials a) | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| **Hydrology and Water Quality 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:<br>i. Result in substantial erosion or siltation on- or off-site;<br>ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;<br>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<br>iv. impede or redirect flood flows? | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 1.1.B, Site Activities* (Details as listed under Impact Geology and Soils b)<br>*Section 1.3.A.2, Storm Water Pollution Prevention Plan* (Details as listed under Impact Hazards and Hazardous Materials a)<br>*Section 1.3.B, Water Control and Disposal Plan* (Details as listed under Impact Hazards and Hazardous Materials a)<br>*Section 1.3.D, Spill Prevention and Response Plan* (Details as listed under Impact Hazards and Hazardous Materials a) | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |
| **Hydrology and Water Quality e):** Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 1.3.A.2, Storm Water Pollution Prevention Plan* (Details as listed under Impact Hazards and Hazardous Materials a) | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| **Noise** | | | | |
| **Noise 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? | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 1.3, Submittals*<br>G. Noise Control and Monitoring Plan<br>1. Submit a plan detailing the means and methods for controlling and monitoring noise generated by construction activities, including demolition, alteration, repair or remodeling of or to existing structures and construction of new structures, as well as by items of machinery, equipment or devices used during construction activities on the site for the Engineer's acceptance prior to any work at the jobsite. The plan shall detail the equipment and methods used to monitor compliance with the plan.<br>*Section 3.7, Noise Control*<br>A. Comply with sound control and noise level rules, regulations and ordinances as required herein and in the CEQA documents which apply to any work performed pursuant to the contract.<br>B. Contractor is responsible for taking appropriate measures, including muffling of equipment, selecting quieter equipment, erecting noise barriers, modifying work operations, and other measures as needed to bring construction noise into compliance.<br>C. Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without said muffler.<br>D. Best available noise control techniques (including mufflers, intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) shall be used for all equipment and trucks, as necessary.<br>E. Truck operations (haul trucks and concrete delivery trucks) will be limited to the daytime hours specified in Section 01 14 00.<br>F. Stationary noise sources (e.g., chippers, grinders, compressors) shall be located as far from sensitive receptors as possible. If they must be located near receptors, adequate muffling (with enclosures) shall be used. Enclosure opening or venting shall face away from sensitive receptors. Enclosures shall be designed by a registered engineer regularly involved in noise control analysis and design.<br>G. Material stockpiles as well as maintenance/equipment staging and parking areas (all on-site) shall be located as far as practicable from residential receptors.<br>**EBMUD's Standard Construction Specification 01 14 00, Work Restrictions**<br>*Section 1.7, Construction Noise* | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| | A. Noise-generating activities greater than 90 dBA (impact construction such as concrete breaking, concrete crushing, tree grinding, etc.) shall be limited to the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday.<br>**Procedure 600, Public Outreach and Community Relations** | | | |
| **Noise b):** Generation of excessive groundborne vibration or groundborne noise levels? | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 1.3.H, Vibration Control and Monitoring Plan*<br>H. Vibration Control and Monitoring Plan<br>1. Submit a plan detailing the means and methods for controlling and monitoring surface vibration generated by demolition and other work on the site for the Engineer's acceptance prior to any work at the jobsite. The plan shall detail the equipment and methods used to monitor compliance with the plan.<br>*Section 3.6, Vibration Control*<br>A. Limit surface vibration to no more than 0.5 in/sec Peak Particle Velocity (PPV), measured at the nearest residence or other sensitive structure. See Section 01 14 00. | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |
| **Transportation** | | | | |
| **Transportation a):** Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities? | **EBMUD's Standard Construction Specification 01 55 26, Traffic Regulation**<br>*Section 1.2, Submittals* (Details as listed under Impact Hazards and Hazardous Materials f)<br>*Section 3.4, Temporary Traffic Control*<br>A. All traffic control devices shall conform to the latest edition of the MUTCD, and as amended by the latest edition of the MUTCD California supplement. Electronic signage board with changeable message shall be placed on a street in both direction 2 weeks in advance.<br>B. The Contractor shall replace within 72 hours, all traffic signal loop detectors damaged during construction. Any work that disturbs normal traffic signal operations and ensure proper temporary traffic control (lane shifts, lane closures, detours etc.) shall be coordinated with the agency having jurisdiction, at least 72 hours prior to commencing construction.<br>C. A minimum of twelve (12) foot travel lanes must be maintained unless otherwise approved.<br>D. Access to driveways will be maintained at all times unless other arrangements are made.<br>E. All traffic control devices shall be removed from view when not in use.<br>F. Before leaving a work area, ensure the area is left orderly. Trenches must be backfilled or plated during non-working hours. | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| | G. Sidewalks for pedestrians will remain open if safe for pedestrians. Alternate routes and signing will be provided if pedestrian routes are to be closed. | | | |
| **Transportation c):** Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | **EBMUD's Standard Construction Specification 01 55 26, Traffic Regulation**<br>*Section 2.1, Traffic Control Devices*<br>A. Traffic signs, flashing lights, barricades and other traffic safety devices used to control traffic shall conform to the requirements of the most recently adopted edition of the MUTCD and the agency having jurisdiction.<br>1. Portable signals shall not be used unless permission is given in writing by the agency having jurisdiction.<br>2. Warning signs used for nighttime conditions shall be reflectorized or illuminated. "Reflectorized signs" shall have a reflectorized background and shall conform to the current State of California Department of Transportation specification for reflective sheeting on highway signs. | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |
| **Transportation d):** Result in inadequate emergency access? | **EBMUD's Standard Construction Specification 01 55 26, Traffic Regulation**<br>*Section 1.2, Submittals* (Details as listed under Impact Hazards and Hazardous Materials f)<br>*Section 3.0, Execution*<br>3.1 GENERAL<br>A. Except where public roads have been approved for closure, traffic shall be permitted to pass through designated traffic lanes with as little inconvenience and delay as possible.<br>B. Install temporary traffic markings where required to direct the flow of traffic. Maintain the traffic markings for the duration of need and remove by abrasive blasting when no longer required.<br>C. Convenient access to driveways and buildings in the vicinity of work shall be maintained as much as possible. Temporary approaches to, and crossing of, intersecting traffic lanes shall be provided and kept in good condition.<br>D. When leaving a work area and entering a roadway carrying public traffic, the Contractor's equipment, whether empty or loaded, shall in all cases yield to public traffic.<br>E. Provide temporary signs as required by the traffic control plan and remove signs when no longer required.<br>F. Haul routes for each construction phase shall be provided to all trucks serving the site during the construction period.<br>G. For complete road closures, immediate emergency access to be provided if needed to emergency response vehicles.<br>H. A minimum of twelve (12) foot travel lanes must be maintained unless otherwise approved. | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| | 3.2 ALTERNATING ONE-WAY TRAFFIC<br>A. Where alternating one-way traffic has been authorized, the following shall be posted at each end of the one-way traffic section at least one week prior to start of work:<br>1. The approximate beginning and ending dates that traffic delays will be encountered.<br>2. The maximum time that traffic will be delayed.<br>B. The maximum delay time shall be approved by the agency having jurisdiction.<br>3.3 FLAGGING<br>A. Provide flaggers to control traffic where required by the approved traffic control plan.<br>1. Flaggers shall perform their duties and shall be provided with the necessary equipment in accordance with the current "Instructions to Flaggers" of the California Department of Transportation.<br>2. Flaggers shall be employed full time on traffic control and shall have no other duties.<br>3.4 TEMPORARY TRAFFIC CONTROL (Details as listed under Impact Transportation a) | | | |
| **Tribal Cultural Resources** | | | | |
| **Tribal Cultural Resources a):** Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:<br>i. Listed or eligible for listing in the California | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 3.10, Protection of Cultural and Paleontological Resources* (Details as listed under Impact Cultural Resources b) | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or<br>ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe | | | | |
| **Utilities and Service Systems** | | | | |
| **Utilities and Service Systems d and e):** 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, or comply with federal, state, and local management and | **EBMUD's Standard Construction Specification 01 35 44, Environmental Requirements**<br>*Section 1.3.C, Construction and Demolition Waste* (Details as listed under Impact Hazards and Hazardous Materials a) | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

| Impact Area | EBMUD Practices and Procedures[1] | Responsibility for Implementation | Responsibility for Monitoring and/or Enforcement | Timing of Implementation |
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| reduction statutes and regulations related to solid waste? | | | | |
| **Wildfire** | | | | |
| **Wildfire a):** Substantially impair an adopted emergency response plan or emergency evacuation plan? | **EBMUD's Standard Construction Specification 01 55 26, Traffic Regulation** *Section 1.2, Submittals* (Details as listed under Impact Hazards and Hazardous Materials f) | EBMUD and EBMUD's Contractor | EBMUD | Prior to and During Construction |

NOTES:

1 In EBMUD Standard Specifications, "District" = EBMUD; "Engineer" = EBMUD Engineer; "Contractor" = EBMUD Contractor; "Work" = Scope of Work for the Project