East Bay Municipal Utility District

Sobrante Water Treatment Plant Reliability Improvements Project

Draft Environmental Impact Report

SCH # 2022030308

Volume II – Appendices A – C

September 2024

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San Francisco, CA 94103
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PANORAMA ENVIRONMENTAL, INC.

East Bay Municipal Utility District

Sobrante Water Treatment Plant Reliability Improvements Project

Draft Environmental Impact Report

SCH # 2022030308

Volume II – Appendices A – C

September 2024

Prepared for:
East Bay Municipal Utility District
Water Distribution Planning Division
375 11th Street
Oakland, CA 94607

Prepared by:
Panorama Environmental, Inc.
717 Market Street, Suite 400
San Francisco, CA 94103

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Appendix A – Notice of Preparation, Initial Study, and Public Comments Received on the Notice of Preparation and Initial Study

APPENDIX A

Appendix A.1 – Notice of Preparation

EAST BAY
MUNICIPAL UTILITY DISTRICT

NOTICE OF PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT SOBRANTE WATER TREATMENT PLANT RELIABILITY IMPROVEMENTS PROJECT EAST BAY MUNICIPAL UTILITY DISTRICT

March 11, 2022

TO: Responsible and Trustee Agencies, Organizations, and Interested Parties

FROM: East Bay Municipal Utility District
375 Eleventh Street, MS 701
Oakland, CA 94607-4240

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report for the Sobrante Water Treatment Plant Reliability Improvements Project

The East Bay Municipal Utility District (EBMUD), acting as lead agency under the California Environmental Quality Act (CEQA), is preparing an Environmental Impact Report (EIR) for the Sobrante Water Treatment Plant (SOWTP) Reliability Improvements Project (Project).

AGENCIES: EBMUD requests your input regarding the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed Project.

ORGANIZATIONS AND OTHER INTERESTED PARTIES: EBMUD requests comments from organizations and interested parties regarding the environmental issues associated with construction and operation of the proposed Project.

PROJECT TITLE: Sobrante Water Treatment Plant Reliability Improvements Project

PROJECT LOCATION: The proposed Project includes improvements at EBMUD's existing SOWTP and a new Central North Aqueduct pipeline located in the Cities of San Pablo and Richmond and in the unincorporated communities of El Sobrante and Rollingwood in California. SOWTP is located at 5500 Amend Road in El Sobrante, California and City of Richmond. The SOWTP is bordered by Amend Road to the north and east, Valley View Road to the west, and San Pablo Dam Road to the south (see Figure 1 and Figure 2). The Central North Aqueduct pipeline would be located in La Honda Road, D Avila Way, San Pablo Dam Road, El Portal Drive, Rollingwood Drive, Road 20, and San Pablo Avenue (see Figure 3).

PROJECT PURPOSE: The Project will update and replace existing treatment processes at the SOWTP to increase the capacity to reliably meet future demand, treat additional Folsom South Canal Connection water during droughts, reduce disinfection by-products, and improve treatment processes.

PROJECT DESCRIPTION: The Project includes construction of new facilities and would be divided into a Phase 1 and Phase 2 sequencing, to meet near-term and long-term demand, respectively. Phase 1 improvements would increase SOWTP capacity to 60 million gallons per day (MGD), and Phase 2 improvements would increase capacity further to 80 MGD (see Figure 2 and Figure 3).

Phase 1 would include the following improvements:

- A raw water control valve and flow meter
- Two spent filter backwash water (SFBW) equalization basins
- A filter-to-waste (FTW) equalization basin

- Two gravity thickeners
- Two SFBW flocculation and sedimentation basins
- Pipelines for the SFBW reclaim and solids handling facilities
- A chlorine contact basin (CCB)
- Inlet/outlet pipelines for a clearwell and hydraulic weir
- A polymer and power building
- Fifth-stage flocculation for the existing two flocculation basins
- Storm drain pipelines and a bioretention pond
- A maintenance building that incorporates existing maintenance buildings/shops
- An entrance gate, security fencing, and lighting
- An access and maintenance road for the new facilities

Phase 2 would include the following improvements:

- A flocculation basin
- A sedimentation basin with tube settlers
- Two dual-media filters and associated pipes, and an operation gallery
- Two ozone contact basins
- An ozone destruct room
- A chemical building
- The Central North Aqueduct pipeline (outside of SOWTP property), which includes:
  - 12,800 feet of 54-inch-diameter pipeline in La Honda Road, D Avila Way, and San Pablo Dam Road
  - 2,400 feet of 72-inch-diameter pipeline in San Pablo Dam Road and El Portal Drive
  - 6,500 feet of 54-inch-diameter pipeline in Rollingwood Drive, Road 20, and San Pablo Avenue

The Project also would include demolition of the existing wash water settling basins, reclaim pumping plant, solids pumping plant, solids detention basins, and related vaults, mechanical, and electrical equipment, after completion of Phase 1.

POTENTIAL ENVIRONMENTAL EFFECTS: Based on the Initial Study completed for the Project, the following areas of potentially significant environmental impacts will be analyzed in the Draft EIR: Aesthetics, Air Quality, Biological Resources, Cultural Resources and Tribal Cultural Resources, Energy Use, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Transportation and Traffic, and Wildfire. Potential cumulative impacts and potential for growth inducement will be addressed, and alternatives, including the No Project Alternative, will be evaluated in the Draft EIR.

PUBLIC REVIEW PERIOD: This NOP is available for public review and comment for 30 days, pursuant to Title 14, Section 15082(b) of the California Code of Regulations. The comment period for the NOP will begin on March 11, 2022 and end on April 11, 2022. Because of limits mandated by State Law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

RESPONSES AND QUESTIONS: Responses to or questions regarding this NOP should be directed to:

Stella Tan, Project Manager
East Bay Municipal Utility District
375 Eleventh Street, MS 701
Oakland, CA 94607-4240
Or by e-mail to: sowtp.improvements@ebmud.com

EAST BAY
MUNICIPAL UTILITY DISTRICT

CEQA PROCESS: The Draft EIR is planned for publication in the first quarter of 2024, with action by EBMUD's Board of Directors expected in the fourth quarter of 2024. Notice will be given of public meetings, including a meeting that will be held during the Draft EIR comment period. At the end of the review and comment process, EBMUD's Board of Directors will determine whether to certify the EIR and approve the Project. The NOP and all CEQA-related documents for the Project will be available for review on the EBMUD website, at: www.ebmud.com/sowtp.

Olujimi O. Yoloye
Director of Engineering and Construction
East Bay Municipal Utility District

3/11/22
Date

OOY:DJR:grd

Attachments: Figure 1. Project Location
Figure 2. Central North Aqueduct Pipeline Location
Figure 3. Phase 1 and Phase 2 Project Elements

Figure 1. Project Location

Figure 2. Phase 1 and Phase 2 Project Elements

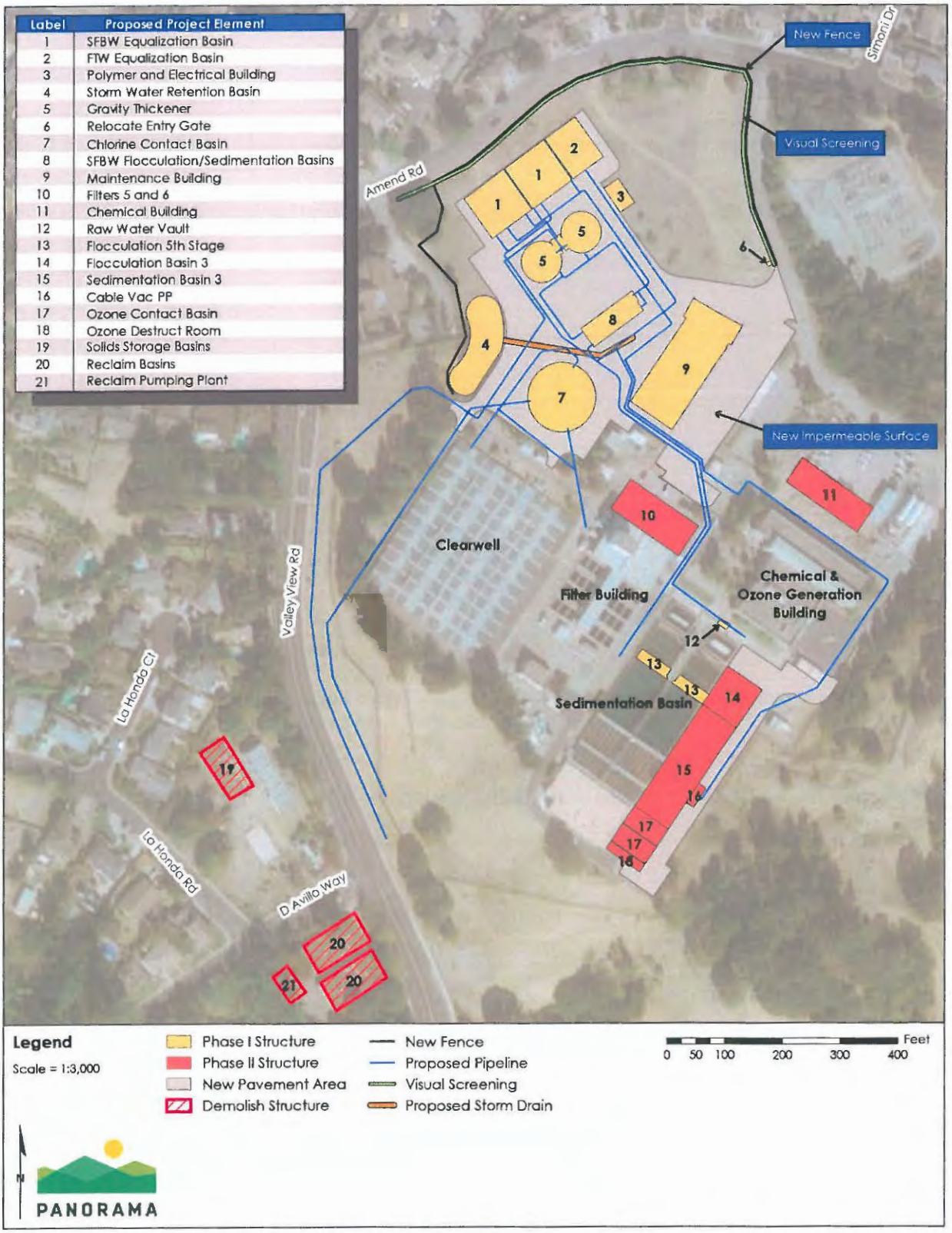
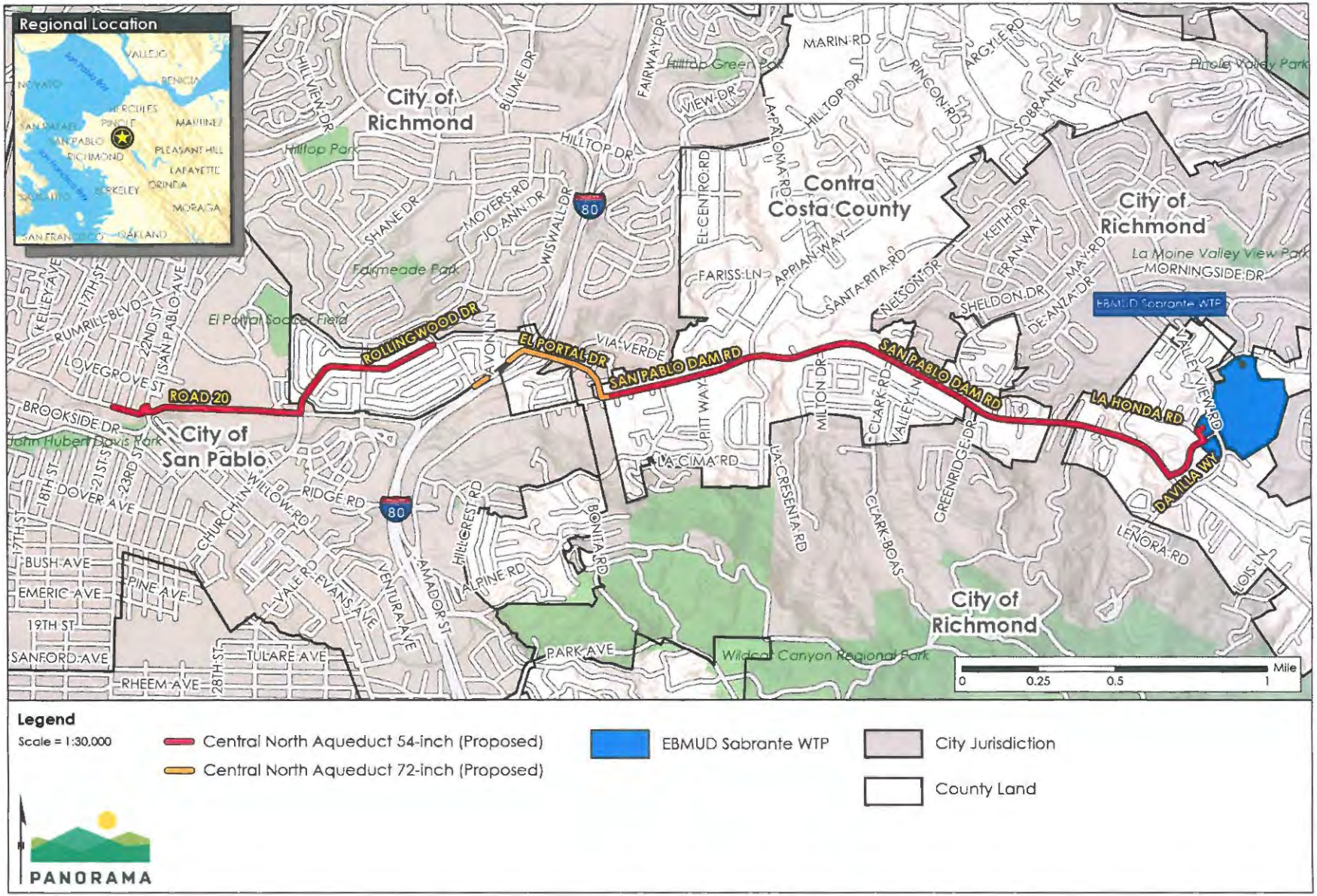


Figure 3. Central North Aqueduct Pipeline Location



Appendix A.2 – Initial Study

East Bay Municipal Utility District

Sobrante Water Treatement Plant Reliability Improvements Project Initial Study

March 2022

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www.panoramaenv.com

PANORAMA ENVIRONMENTAL, INC.

East Bay Municipal Utility District

Sobrante Water Treatment Plant Reliability Improvements Project

Initial Study

March 2022

Prepared for:
East Bay Municipal Utility District
375 11th Street
Oakland, CA 94607

Prepared by:
Panorama Environmental, Inc.
717 Market Street, Suite 400
San Francisco, CA 94103

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PANORAMA ENVIRONMENTAL, INC.

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Acronyms and Abbreviations

AWS	Alameda whipsnake
bmp	best management practice
CalGreen	California Green Building Standards Code
CCB	chlorine contact basin
CRHR	California Register of Historical Resources
CRLF	California red-legged frog
EBMUD	East Bay Municipal Utility District
ESA	Environmental Site Assessment
FSCC	Folsom South Canal Connection
GHG	greenhouse gas
MGD	million gallons per day
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
Project	Sobrante Water Treatment Plant Reliability Improvements Project
SFBW	spent filter backwash water
SFDFW	San Francisco dusky-footed woodrat
SLF	Sacred Lands Files
SOWTP	Sobrante Water Treatment Plant
UST	underground storage tank

1 Environmental Checklist

1.	**Project Title:**	Sobrante Water Treatment Plant Reliability Improvements Project
2.	**Lead agency name and address:**	East Bay Municipal Utility District Water Distribution Planning Division – MS 701 375 11th Street Oakland, CA 94607
3.	**Contact person and phone number:**	Stella Tan, Project Manager East Bay Municipal Utility District Water Distribution Planning Division – MS 701 375 11th Street Oakland, CA 94607 510-287-1208 sowtp.improvements@ebmud.com www.ebmud.com/sowtp
4.	**Project locations:**	The Sobrante Water Treatment Plant (SOWTP) Reliability Improvements Project (Project) includes improvements at the existing SOWTP and a new Central North Aqueduct pipeline located in the Cities of San Pablo and Richmond and in the unincorporated communities of El Sobrante and Rollingwood in California. The SOWTP is at 5500 Amend Road, El Sobrante and City of Richmond, in Contra Costa County. The SOWTP is bordered by Amend Road to the north and east, Valley View Road to the west, and San Pablo Dam Road to the south. The Central North Aqueduct pipeline is located in portions of La Honda Road, D Avila Way, San Pablo Dam Road, El Portal Drive, Rollingwood Drive, Road 20, and San Pablo Avenue.
5.	**Project sponsor's name and address:**	East Bay Municipal Utility District (EBMUD) Water Distribution Planning Division 375 11th Street, MS 701 Oakland, CA 94607
6.	**General plan designation:**	SOWTP: Open Space, Public/Semi-Public

7. **Zoning:** SOWTP: General Agriculture (A-2), Open Space, Single Family Residential (R-7), Multiple Family Residential (M-29)

8. **Description of Project:** The SOWTP, constructed in 1964, is the primary water treatment plant serving customers in El Sobrante, Richmond, Pinole, Hercules, Crockett, Rodeo, and San Pablo. The SOWTP primarily treats untreated water stored locally in San Pablo Reservoir. The Project would implement improvements to increase the SOWTP's capacity to meet future demand, treat additional Folsom South Canal Connection (FSCC) water during droughts, reduce disinfection by-products, and improve treatment processes. Figure 1 shows the Project vicinity and Figure 2 shows the proposed location and approximate footprint of the new facilities and ancillary improvements required throughout the SOWTP site.

   The Project would include construction of new facilities and would be divided into a Phase 1 and Phase 2 sequencing, to meet near-term and long-term demand, respectively as detailed below. The Phase 1 improvements would increase the water treatment plant capacity to 60 million gallons per day (MGD), and the Phase 2 improvements would increase capacity further to 80 MGD (see Figure 2 and Figure 3).

   Phase 1 would include the following improvements:

   - A raw water control valve and flow meter
   - Two spent filter backwash water (SFBW) equalization basins
   - A filter-to-waste (FTW) equalization basin
   - Two gravity thickeners
   - Two SFBW flocculation and sedimentation basins
   - Pipelines for the SFBW reclaim and solids handling facilities
   - A chlorine contact basin (CCB)
   - Inlet/outlet pipelines for a clearwell and hydraulic weir
   - A polymer and power building
   - Fifth-stage flocculation for the existing two flocculation basins
   - Storm drain pipelines and a bioretention pond
   - A maintenance building that incorporates existing maintenance buildings/shops
   - An entrance gate, security fencing, and lighting
   - An access and maintenance road for the new facilities

   Phase 2 would include the following improvements:

   - A flocculation basin
   - A sedimentation basin with tube settlers
   - Two dual-media filters and associated pipes, and an operation gallery
   - Two ozone contact basins
   - An ozone destruct room
   - A chemical building
   - The Central North Aqueduct pipeline (outside of SOWTP property), which includes:

- 12,800 feet of 54-inch-diameter pipeline in La Honda Road, D Avila Way, and San Pablo Dam Road in the unincorporated community of El Sobrante and city of Richmond
- 2,400 feet of 72-inch-diameter pipeline in San Pablo Dam Road and El Portal Drive (city of Richmond, city of San Pablo, and the unincorporated communities of Rollingwood and El Sobrante)
- 6,500 feet of 54-inch-diameter pipeline in Rollingwood Drive, Road 20, and San Pablo Avenue (city of San Pablo and the unincorporated community of Rollingwood)

The Project also would include demolition of the existing wash water settling basins, reclaim pumping plant, solids pumping plant, solids detention basins, and related vaults, mechanical, and electrical equipment, after completion of Phase 1.

9. **Surrounding land uses and setting:** The SOWTP is surrounded primarily by residential areas and the Richmond Fire Department Station #63, directly west. The SOWTP is bounded by Amend Road to the north and Valley View Road to the west. The Central North Aqueduct pipeline alignment follows La Honda Road, D Avila Way, San Pablo Dam Road, El Portal Drive, Rollingwood Drive, Road 20, and San Pablo Avenue.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):** Potential permits and agencies approvals would include, but may not be limited to:

- U.S. Army Corps of Engineers: Clean Water Act Section 404 permit for fill to waters of the U.S.
- Completion of federal consultation requirements, including consultation with the U.S. Fish and Wildlife Service and State Historic Preservation Office
- California Department of Fish and Wildlife: Streambed Alteration Agreement for impacts to riparian areas
- State Water Resources Control Board: Notice of Intent (NOI) for coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges associated with Construction and Land Disturbance Activities (Construction General Permit)
- Regional Water Quality Control Board: Clean Water Act Section 401 Water Quality Certification or Waiver, and possible coverage of dewatering discharges under General Low-Threat Discharge Permit;
- Bay Area Air Quality Management District: Authority to Construct and Permit to Operate an ozone system
- Division of Drinking Water: Domestic Water Supply permit amendment for new treatment processes and increased capacity
- Contra Costa County: Encroachment Permit

- City of Richmond: Encroachment Permit
- City of San Pablo: Encroachment Permit

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

To date no Native American tribes have requested consultation with EBMUD.

Figure 1 Project Location

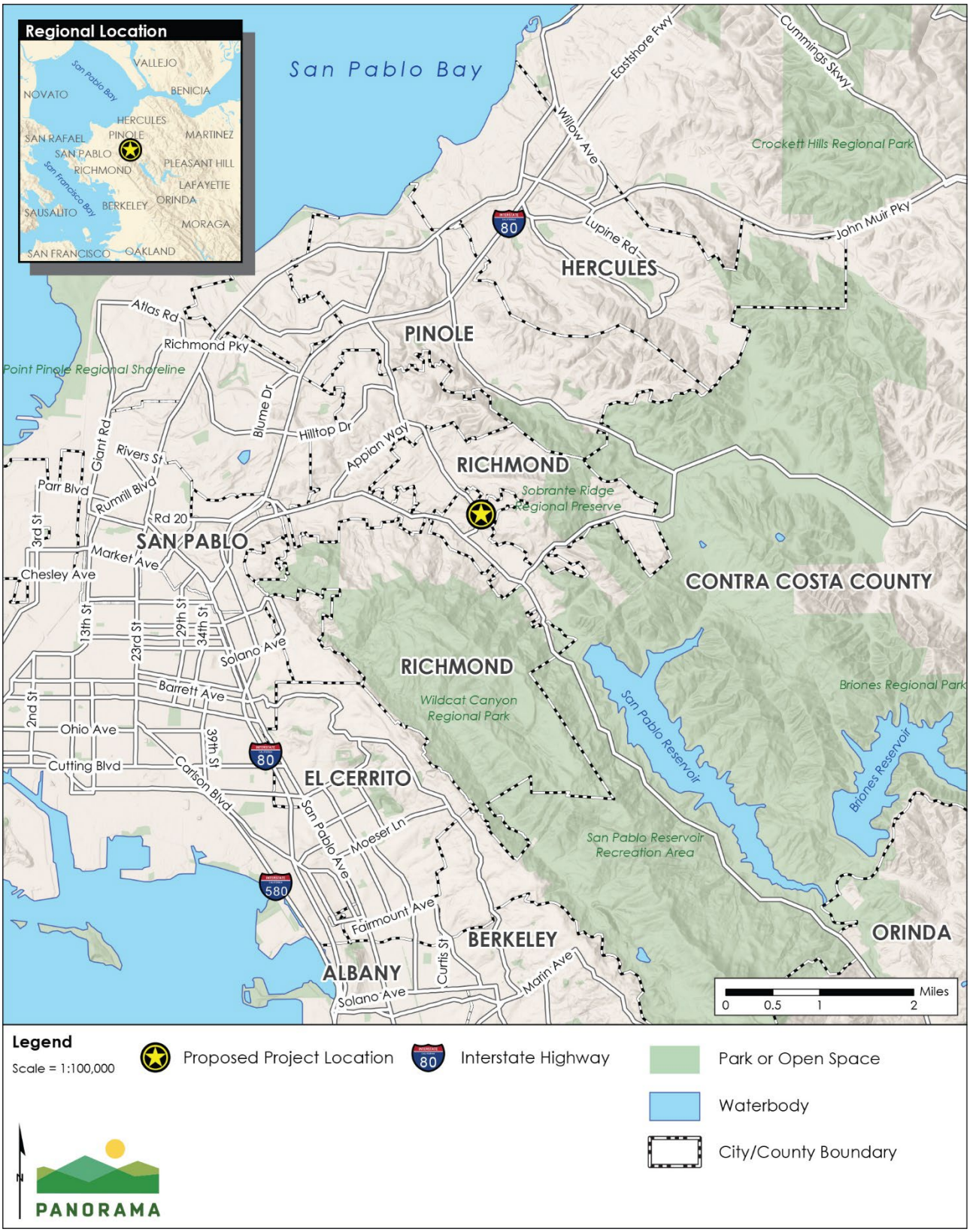


Figure 2 Phase 1 and Phase 2 Project Elements

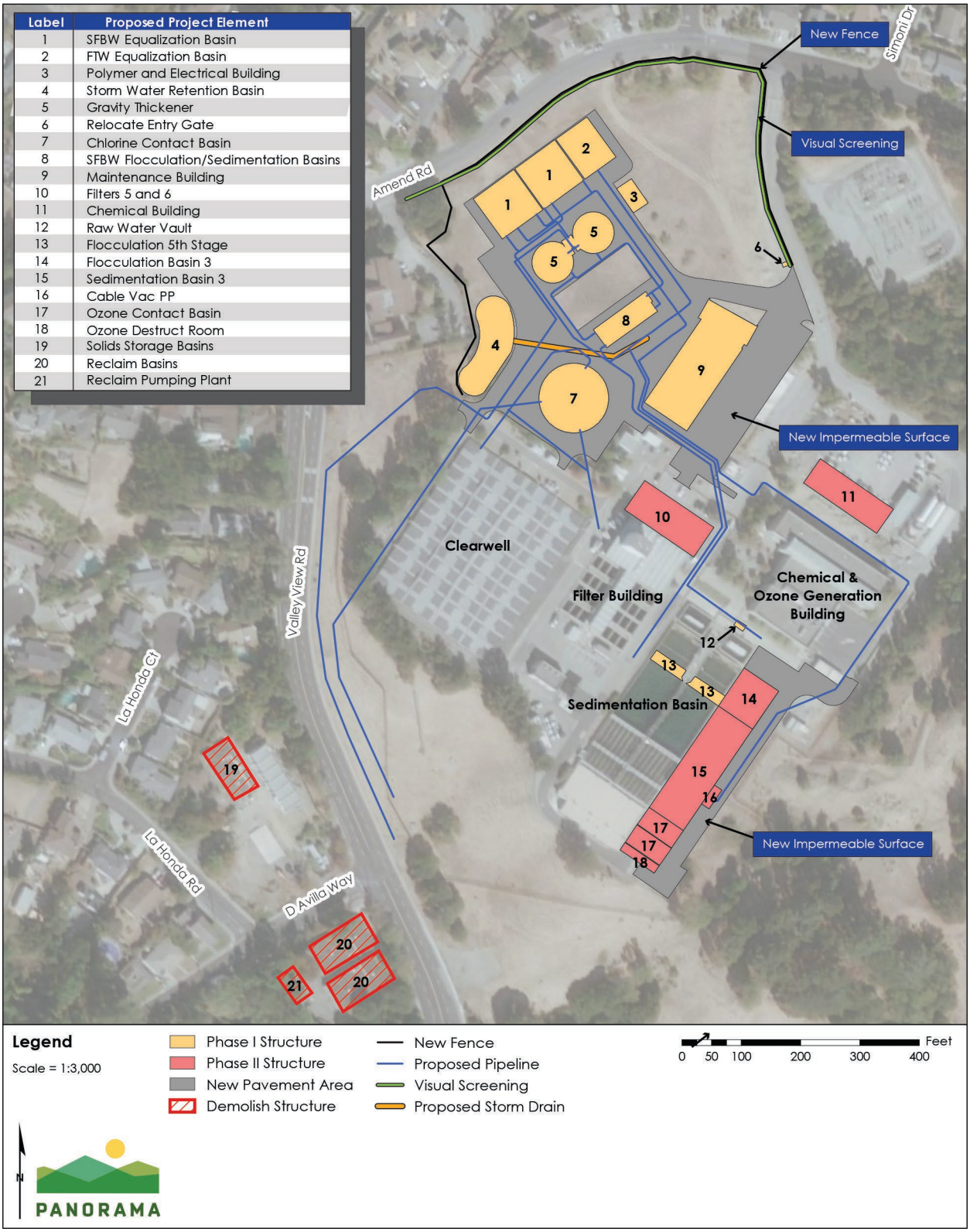
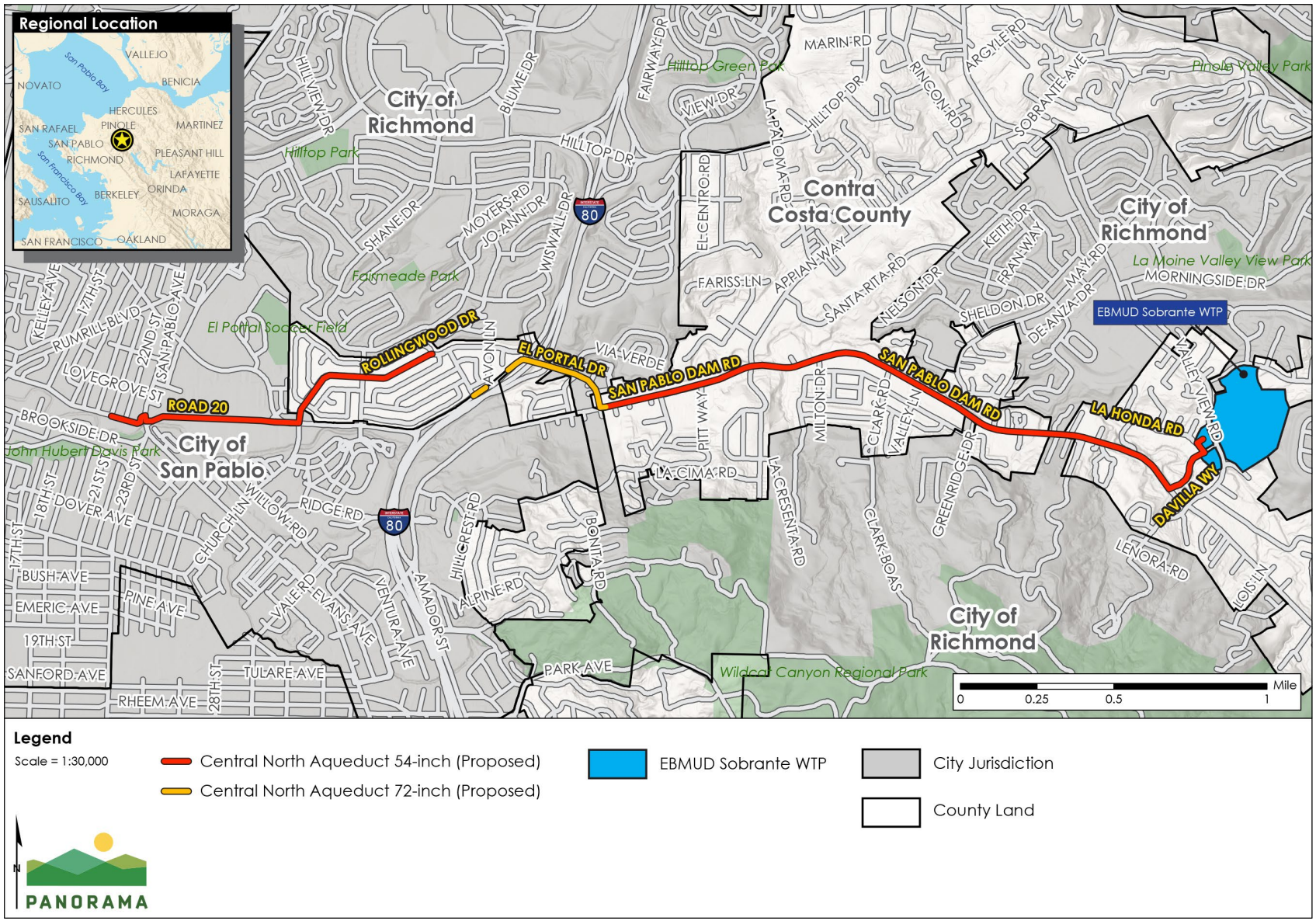


Figure 3 Central North Aqueduct Pipeline Location



Environmental Factors Potentially Affected

The following checked environmental factors potentially would be affected by the Project, involving at least one potentially significant impact, as shown in the CEQA checklist on the following pages.

☒ Aesthetics	☐ Agriculture/Forestry	☒ 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

DETERMINATION: (To be completed by Lead Agency)

On the basis of this initial evaluation:

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

☐ Although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ The proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

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

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

1.1 Aesthetics

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

Discussion

a) **Less than Significant Impact.** Contra Costa County has many scenic vistas in the Project vicinity, but the two main scenic features are: (1) scenic ridges, hillsides, and rock outcroppings; and (2) the San Francisco Bay/Delta estuary system (Contra Costa County, 2010a). The SOWTP is not visible from the San Francisco Bay/Delta estuary system. The proposed SOWTP facilities could be visible from surrounding ridgelines. The proposed SOWTP facilities would be integrated into the existing SOWTP and would be similar in nature to the existing SOWTP. Therefore, changes of views from the surrounding ridgelines due to the new SOWTP facilities would not have a substantial adverse effect. Because the changes to scenic vistas would not be substantially adverse, the impact would be less than significant.

b) **Less than Significant Impact.** No state scenic highways are in or near the Project area (Caltrans, 2018). Contra Costa County has designated San Pablo Dam Road as a scenic route (Contra Costa County, 2010b). The SOWTP is not visible from San Pablo Dam Road, but the Central North Aqueduct pipeline alignment would be within San Pablo Dam Road, from D Avilla Way to El Portal Drive. The pipeline would be constructed underground within the public right-of-way and not visible during Project operation, but small air valves would be above grade at the high points along the alignment which would be minimally visible. Because the impacts from construction of the Central North Aqueduct pipeline would be temporary and

the buried pipeline would not affect views from San Pablo Dam Road, the impact on scenic roads would be less than significant.

c) **Potentially Significant Impact.** The proposed SOWTP facilities and improvements would be integrated into the existing SOWTP. New facilities that are proposed to be constructed would be visually integrated into the existing SOWTP, which is already a visual element of the site and surrounding views, so the new facilities would maintain the existing visual character of the SOWTP. The nature, scale, and locations of the proposed facilities could affect the visual quality and character of the site due to closer proximity to the residential areas. The Central North Aqueduct pipeline would not be visible during operation, because the pipeline would be buried and would not affect visual quality. Because the impact from changes in the existing visual character or quality of public views of the SOWTP would be potentially significant, this impact will be described further in the EIR.

d) **Potentially Significant Impact.** Project construction may require nighttime lighting in the winter when construction may extend after sunset. Furthermore, new external lighting would be required for the proposed facilities, to allow safe site access and provide secure viewing of the SOWTP at all times. The new lighting would be focused downward to minimize light spillage on the surrounding neighborhood while still providing sufficient light for operations staff and security purposes. The proposed maintenance building could be visible to the surrounding residential areas but the design would ensure that no building materials become a substantial source of glare. The water surface at the equalization basins would be the same level of glare generated from a natural water body and would not be a nuisance to viewers in neighboring areas. Because the impact from sources of lighting during Project construction and operation would be potentially significant, this will be described further in the EIR.

1.2 Agriculture and Forestry

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

Discussion

a -b) **No Impact.** The existing SOWTP site's land use is designated as Public/Semi-Public (PS) in the Contra Costa County General Plan and is zoned for General Agriculture (Contra Costa County, 2020). This zoning designation reflects its previous use for agricultural production, prior to being developed for the SOWTP in the 1960s. The California Important Farmland Finder indicates that the Project site is on Urban and Built-Up Land and does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (California Department of Conservation, 2018). Furthermore, the Central North Aqueduct pipeline would be entirely within public roads. Because the Project would not convert Farmland to nonagricultural use,

would not conflict with existing zoning for agricultural use, and would not affect any lands under Williamson Act contract, no impact would occur.

c -d) **No Impact.** The Project area does not contain forest land. Because no loss of forest land or conflicts with zoning of forest land would be caused by the Project, no impact would occur.

e) **No Impact.** No agricultural or forest lands are in the Project area. The SOWTP provides potable water to existing urban areas. Because the Project would not convert farmland or forest land to other uses, no impact would occur.

1.3 Air Quality

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

Discussion

a -c) **Potentially Significant Impact**. Project construction would result in emissions of criteria pollutants during heavy equipment operation and use. The increased water treatment capacity and improved water treatment processes potentially could result in new operational emissions. Because the impact from construction and operational emissions could be potentially significant, the impacts will be described further in the EIR.

d) **Potentially Significant Impact**. Project construction would require use of diesel equipment that would generate odors from diesel exhaust emissions. Project operation would increase water treatment capacity and improve water treatment processes, neither of which would be a source of offensive odors. Because the impact from diesel equipment generating odors during construction would be potentially significant, the impact will be described further in the EIR.

1.4 Biological Resources

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☒	☐	☐	☐
c) Have a substantial adverse effect on 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

a) **Potentially Significant Impact.** The SOWTP site contains non-native grassland, coast live oak woodland, seasonal wetland, willow riparian, and developed/ruderal vegetation. Seasonal wetlands are along the northern and southern edge of the site. No special-status plants were detected during focused floristic surveys of the site (Sequoia, 2021a).

San Pablo Creek flows to the south from the reclaim basin auxiliary facility at the SOWTP and provides low-quality habitat for western pond turtle *(Emys marmorata)* and low- to mid-quality habitat for California red-legged frog (CRLF) (*Rana draytonii*) (Sequoia, 2021b). Mid-quality

upland CRLF habitat is north and east of San Pablo Creek, where CRLF could overwinter; however, no burrow complexes were observed in the mid-quality upland CRLF habitat north and east of San Pablo Creek (Sequoia, 2021b). The upland habitat are grassland and discontinuous oak woodland, which potentially could provide dispersal habitat for Alameda whipsnake (AWS) *(Masticophis lateralis euryxanthus)*. However, the Project area is not continuous with known populations of AWS, making dispersal unlikely to occur at the Project site. There is habitat for San Francisco dusky-footed woodrat (SFDFW) (*Neotoma fuscipes annectens*) throughout the Project area; however, no SFDFW nests or middens were observed at the Project site (Sequoia, 2021b). Good quality nesting habitat for passerines and some waterfowl are present throughout the Project area, and tall buildings and scattered eucalyptus trees around open areas also could provide nest sites for raptors. In addition, a small drainage in the southeast corner of the Project area could provide dependable access to water that may attract some species.

Based on the database and literature review conducted for the Project, special-status wildlife species have been previously documented in the vicinity of the Project site. The Project could have potentially significant impacts on special-status species and the impact will be described further in the EIR.

b) **Potentially Significant Impact**. The Project would require trimming and potentially removal of oak trees adjacent to a seasonal drainage and San Pablo Creek. The impact on riparian areas is potentially significant and will be described further in the EIR.

c) **Potentially Significant Impact**. The Project would fill a portion of the seasonal wetlands in the northern portion of the Project site. The impact on wetlands is potentially significant and will be described further in the EIR.

d) **No Impact**. The Project is an urbanized area that has already been developed. San Pablo Creek is the only true wildlife corridor in proximity to the Project site and will be unaffected by Project construction and operation. The Project will have no impact on the movement of native wildlife.

e) **Potentially Significant Impact.** According to the preliminary arborist conditions report, Project construction would remove some trees. The trees to be removed are considered to be protected under City of Richmond and Contra Costa County policies and ordinances (Merrill Morris Partners, 2021). While EBMUD is exempt from local ordinances, including tree removal permit requirements, the tree removal activities could result in an impact on the environment that would conflict with local ordinances for the protection of biological resources. Because the potential conflict with local policies and ordinances protecting biological resources would be potentially significant, this impact will be described further in the EIR.

f) **No Impact**. Because the Project area is not within the boundaries of any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation agreement, no impact would occur.

1.5 Cultural Resources

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

Discussion

a) **No Impact.** An evaluation of historic-age buildings and structures in the Project area was conducted in August 2021 (Paleowest, 2021). None of the individual buildings or structures or the SOWTP facility as a whole, is a historical resource or meets the criteria for listing in the California Register of Historical Resources (CRHR). Because none of the buildings or structures are eligible for listing on the CRHR, and because the Central North Aqueduct pipeline would be buried within roadways and would not affect any potentially significant historic buildings or structures, no impact would occur.

b) **Potentially Significant Impact.** The preliminary cultural resources analyses determined that the Project area does not contain any previously recorded Native American sites or historic-period archaeological sites (Paleowest, 2021). Desktop geoarchaeological analyses of the mapped sediments at the SOWTP and other factors influencing buried site sensitivity, such as proximity to streams and known archaeological sites, suggest that the majority of the Project site has low sensitivity for containing unknown buried archaeological sites. However, the southwest area of the Project site near the intersection of D'Avilla Way and Valley View Road is considered to have moderate to high sensitivity for buried archaeological deposits. Portions of the Central North Aqueduct pipeline may also include areas that are sensitive to buried resources. Because the impact of the proposed ground-disturbing activities in the southwest portion of the site on unknown buried archaeological resources would be potentially significant, the impact will be described further in the EIR.

c) **Potentially Significant Impact.** No human remains have been discovered at the SOWTP. The Central North Aqueduct pipeline construction would require trenching and subsurface excavation that could potentially encounter human remains. Although the Project site and pipeline alignment are unlikely to contain human remains, the lack of surface and record indications does not preclude the possibility that human remains could be present and inadvertently encountered and damaged during Project construction. The presence of a cultural

site in the Sacred Lands Files (SLF) also suggests an increased potential to encounter human remains at the Project site (Paleowest, 2021). Because the Project construction has the potential to disturb human remains the impact is considered potentially significant, it will be described further in the EIR.

1.6 Energy

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
ENERGY. Would the project:				
a) Result in a 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

a-b) **Potentially Significant Impact.** The Project would require energy for construction and for operation of the new facilities. Because the energy impact would be potentially significant, this will be described further in the EIR.

1.7 Geology and Soils

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☒	☐	☐	☐
ii) Strong seismic ground shaking?	☒	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☒	☐	☐	☐
iv) Landslides?	☒	☐	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☒	☐	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☒	☐	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☒	☐	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative 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 geologic feature?	☒	☐	☐	☐

Discussion

a i) **Potentially Significant Impact**. The SOWTP is not within an Alquist-Priolo earthquake fault zone, but a portion of the Central North Aqueduct pipeline would traverse the Hayward fault zone, which is in the Alquist-Priolo earthquake fault zone (California Department of Conservation, 2021a). Because the impact associated with ruptures because of earthquake faults

in the Alquist-Priolo earthquake fault zone would be potentially significant, the impact will be described further in the EIR.

a ii) **Potentially Significant Impact**. Major earthquakes in the San Francisco Bay Area have been recorded since the early 1800s along various faults of the San Andreas fault system. The Project site would be subject to the potential adverse effects of severe shaking from nearby faults, dominated by the Hayward fault. Because the impact associated with strong seismic ground shaking would be potentially significant, the impact will be described further in the EIR.

a iii-iv) **Potentially Significant Impact**. Landslides and other ground failures occur during earthquakes, triggered by the strain induced in soil and rock by the groundshaking vibrations, and during non-earthquake conditions, most frequently during the rainy season. Liquefaction is a specialized form of ground failure caused by earthquake ground motion. Liquefaction is a "quicksand" condition, occurring in water-saturated, unconsolidated, relatively clay-free sands and silts, caused by hydraulic pressure (from ground motion) forcing apart soil particles and forcing them into quicksand-like liquid suspension. In the process, normally firm but wet ground materials take on the characteristics of liquids (Contra Costa County, 2010c). According to the preliminary geotechnical study of the SOWTP site, the majority of the proposed Project facilities would not be subject to potential slope movement hazards, with the possible exception in an area of previously mapped sliding (presumably presently stable) below the southwest corner of the existing clearwell (Terra Engineers, Inc., 2021). Because the impact associated with seismic-related ground failure, including liquefaction, would be potentially significant, the impact will be described further in the EIR.

b) **Potentially Significant Impact**. Soils in the Project site is within the Upland Soil Associations category. The Upland Soil Associations soils generally are highly expansive and corrosive, with moderate to slow permeability (Contra Costa County, 2010d). Project construction and operations potentially could result in soil erosion and loss of topsoil by grading approximately 5 acres of ground and increasing impervious surfaces at the SOWTP site. Standard industry methods, such as sediment and erosion control best management practices (BMPs), would be implemented to prevent surface runoff and erosion where applicable. Because the impact associated with soil erosion and topsoil loss would be potentially significant, the impact will be described further in the EIR.

c) **Potentially Significant Impact**. Aside from earthquake rupture and the direct effects of ground shaking (see discussion a iii-iv), one of Contra Costa County's major geological hazards is from unstable hill slopes. Slopes may suffer landslides, slumping, soil slips, and rockslides. Landslide-susceptible areas are characterized by steep slopes and downslope creep of surface materials. As previously mentioned, the majority of the proposed new facilities would not be subject to potential slope movement hazards, with the possible exception of the area on the south-facing slope above and along Valley View Road, which could be subject to shallow slope creep (debris flow) (Terra Engineers, Inc., 2021). Because the impact associated with unstable

geological or soil units would be potentially significant, the impact will be described further in the EIR.

d) **Potentially Significant Impact**. As previously mentioned, the Project site soil is within the Upland Soil Associations category, which generally is highly expansive (Contra Costa County, 2010d). The "shrink-swell" capacity of expansive soils can cause damage to foundations and pipelines. Because the impact on soil that has expansive properties would be potentially significant, the impact will be described further in the EIR.

e) **No Impact**. Because no installation of septic tanks or alternative wastewater disposal systems would be part of the Project, no impact would occur.

f) **Potentially Significant Impact.** Paleontological resources can be found within the geographic extent of sedimentary rocks formations at the SOWTP. The Project would require excavation into geologic units that could contain paleontological resources. Because the impact on paleontological resources would be potentially significant, the impact will be described further in the EIR.

1.8 Greenhouse Gas Emissions

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

Discussion

a-b) **Potentially Significant Impact**. The Project would generate greenhouse gas (GHG) emissions during construction and with potential increases in operational energy use associated with the additional treatment processes. Because the impact from the increase in GHG emissions would be potentially significant, the impact will be described further in the EIR.

1.9 Hazards and Hazardous Materials

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☒	☐	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☒	☐	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☒	☐	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☒	☐	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard 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

a) **Potentially Significant Impact.** The Project would use a larger quantity of chemicals than currently used at SOWTP to treat the increased water treatment capacity. Phase 2 of the Project includes a new chemical building to increase the available chemical storage for the 80 MGD capacity of the SOWTP. The types of chemicals used at the SOWTP will remain the same. Demolition of some existing SOWTP facilities would entail removal of hazardous building materials, such as asbestos-containing materials (e.g., pipeline gaskets) at the Reclaim Basin Pumping Plant (Acumen Industrial Hygiene Inc., 2021). A Phase I Environmental Site Assessment (ESA) of the SOWTP was conducted in August 2021 which discovered the possible

presence of an undocumented fuel release from a 1,000-gallon diesel underground storage tank (UST) that potentially could affect soil, soil vapor, and/or groundwater quality (Northgate Environmental Management, Inc., 2021). The ESA also noted the possibility of residual agricultural chemicals (primarily Dichlorodiphenyltrichloroethane [DDT]-related compounds and metals) that could be present in shallow soil at the Project site because of historical orchard and possibly cattle grazing operations at the site. Because the impact of the demolition and disposal of hazardous materials and wastes would be potentially significant, the impact will be described further in the EIR.

b) **Potentially Significant Impact.** Project construction and operations would require the use of diesel fuel and minor amounts of lubricants, paints, solvents, and glues. Because the impact associated with release of hazardous materials to the environment would be potentially significant, the impact will be described further in the EIR.

c) **Potentially Significant Impact.** The SOWTP is not within 0.25 mile of an existing or proposed school. However, the Central North Aqueduct pipeline alignment would be within 0.25 mile of La Cheim School; Sheldon Elementary School; Rancho School; Highland Elementary; Vista High School; Helms Middle School; Contra Costa College; and Broadway School (U.S. EPA, 2021). Because the impact of hazardous emissions or of handling hazardous materials within 0.25 mile of these schools would be potentially significant, the impact will be described further in the EIR.

d) **Potentially Significant Impact**. The Project site is listed in the GeoTracker website (SWRCB, 2021) as having a UST, permitted by the Contra Costa County Health Services Department, identified as EBMUD Sobrante Water Treatment Plant (Facility ID 07-000-734538). The Project site is not listed in the EnviroStor website (Department of Toxic Substances Control (DTSC), 2021). Because the impact of a UST at the Project site would be potentially significant, the impact will be described further in the EIR.

e) **No Impact**. The Project site is not within 2 miles of a public airport. The nearest public airport, Buchanan Field, is more than 10 miles away. Because of the distance to the nearest public airport, no impact would occur.

f) **Potentially Significant Impact**. Project implementation would not impair or physically interfere with adopted emergency response or evacuation plans. However, the construction activities for the Central North Aqueduct pipeline during Phase 2 of the Project could require temporary lane closure or road closure, which could affect emergency response access during construction. Because the impact of temporary Project interference with emergency response along San Pablo Dam Road, El Portal Drive, Rollingwood Drive, and Road 20 would be potentially significant, the impact will be described further in the EIR.

g) **Potentially Significant Impact**. The Project site is in a "local responsibility area," where local jurisdictions are responsible for fire protection. The Project site is approximately 1,000 feet from a very high fire hazard severity zone (CALFIRE, 2009). Construction equipment can generate fires from hot exhaust gases or from contact with the hot surfaces of exhaust systems.

Because the impact of increased risk of wildfire during construction would be potentially significant, the impact will be described further in the EIR.

1.10 Hydrology and Water Quality

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY. Would the project:				
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 offsite;	☒	☐	☐	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☒	☐	☐	☐
iv) impede or redirect flood flows?	☒	☐	☐	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☒	☐	☐	☐

Discussion

a) **Potentially Significant Impact**. Construction activities could increase erosion and sedimentation, and spills of fuels or lubricants could degrade water quality of surface waters from stormwater discharges. The new facilities would increase the impervious surface area, which could result in additional discharge of stormwater to surface waters. Project improvements would include installation of a bioretention basin to capture and treat stormwater, in accordance with applicable local and state water quality control plans and regulations. Stormwater runoff from construction activities could degrade surface water

quality. Because the impact on water quality from the foregoing factors would be potentially significant, the impact will be described further in the EIR

b) e) **Potentially Significant Impact.** Project construction would not require groundwater supplies. The new facilities would increase the impervious surface area by approximately 5 acres. Project improvements would include a bioretention basin that would treat and control stormwater runoff and encourage recharge of groundwater. However, because the impact of the increase in impervious surface area and resulting impact on groundwater recharge would be potentially significant, the impact will be described further in the EIR.

c i-iv) **Potentially Significant Impact.** Project improvements would create approximately 5 acres of additional impervious surface. The Project also includes construction within a natural drainage/seasonal wetland and flow within that drainage would be rerouted around the Project. Project construction would require substantial earth moving. The construction activities and changes in drainage patterns at the site and infiltration rates could cause erosion or siltation to occur on or off site. The Project includes a bioretention basin and stormwater improvements to capture the increased runoff, but off-site flooding, exceedance of the stormdrain capacity, or redirection of flood flows are risks due to the rerouting of an existing seasonal drainage and increased impervious surface. The impacts on erosion and siltation, flooding, and stormwater capacity would be potentially significant and will be described further in the EIR.

d) **Potentially Significant Impact.** The SOWTP is not in an area subject to flood hazard, tsunami, or seiche. The Central North Aqueduct pipeline would cross a Federal Emergency Management Agency flood hazard zone that has a 1 percent annual chance of flood hazard (Zone A), at D Avilla Way and El Portal Drive. The Central North Aqueduct pipeline would be placed underground within a public right-of-way and would not be subject to flood inundation during Project operations. During Project construction, a release of pollutants could occur during flood inundation. The likelihood of active construction during a flood event is low and standard construction best management practices regarding work during rain events and spill control methods would reduce the impact to less than significant.

1.11 Land Use and Planning

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

Discussion

a) **No Impact.** Phase 1 of the Project would be constructed and operated within the SOWTP site owned by EBMUD, adjacent to the existing SOWTP facilities. Phase 2 of the Project would include construction of the Central North Aqueduct pipeline to support conveyance of the increased capacity of the SOWTP. The Central North Aqueduct pipeline would be placed entirely underground and within a public right-of-way. Because the Project would not physically divide an established community, no impact would occur.

b) **No Impact.** The Project site is designated for Public/Semi-Public (PS) land use and zoned for General Agriculture. The Central North Aqueduct pipeline would traverse Single-Family Residential, Open Space, Multi-Family Residential–High, Office, Commercial, and Public/Semi-Public land use designations (Contra Costa County, 2020) and will be located within the existing roadway right-of-way. Phase 1 of the Project would be constructed and operated within the existing Project site. Phase 2 would be constructed and operated within the existing Project site or underground and primarily within a public or EBMUD right-of-way. A temporary construction easement may be required for construction of a portion of the Central North Aqueduct pipeline where it crosses San Pablo Creek. The Project would not change the existing uses of the Project site or public right-of-way. Because the Project would not conflict with any land use plan, policy, or regulation, no impact would occur.

1.12 Mineral Resources

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

Discussion

a-b) **No Impact.** No mineral resources are known to occur on the Project site. The Contra Costa County General Plan does not identify mineral resources or aggregate areas in the Project area (California Department of Conservation, 2021b). Because the Project would not result in loss of a known mineral resource or loss of availability of a locally important mineral recovery site in a General Plan, no impact would occur.

1.13 Noise

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

Discussion

a) **Potentially Significant Impact.** Phase 1 of the Project includes construction and demolition within the Project site and adjacent to residential areas. The Central North Aqueduct pipeline constructed in Phase 2 of the Project would be underground, within a public right-of-way and adjacent to residential areas. SOWTP operation is not expected to generate noise that would be perceptible at any sensitive receptor locations. Construction and demolition would require the use of construction equipment that would generate short-term noise impacts that could affect sensitive receptors, including adjacent residences proximal to the Project. Limited nighttime construction could be required along portions of the Central North Aqueduct pipeline and could cause short-term nighttime noise, which could affect nearby residences. Because the impact of construction noise would be potentially significant, the impact will be further described in the EIR.

b) **Potentially Significant Impact.** Construction activities could generate groundborne vibration during pile drilling, compaction of fill at the SOWTP site, and as part of repaving along the Central North Aqueduct pipeline, which could result in damage to nearby structures or cause substantial human annoyance. Demolition activities could also generate vibration from use of jackhammers and other equipment required to remove the concrete. Because the impact of vibration would be potentially significant, the impact will be further described in the EIR.

c) **No Impact.** The Project is not located within 2 miles of a private or public airport nor within an area with an adopted airport land use plan. Because the Project site is not within 2

miles of a private or public airport or airport land use planning area, no impact from airport noise would occur.

1.14 Population and Housing

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

Discussion

a) **No Impact.** The proposed improvements at the SOWTP would not include construction of new homes or businesses. Therefore, the Project would not directly induce population growth. The Project would add treatment improvements that would allow EBMUD to increase reliability of water service. Land use agencies in the EBMUD service area, including both cities and counties, develop and adopt long-term planning documents, such as general plans, for physical development within their jurisdictions. These planning documents determine the nature and intensity of land uses served by EBMUD. Demand associated with land use agency planned growth was accounted for in EBMUD's 2050 Demand Study (EBMUD, 2020) which was used to determine proposed Project sizing and design. Because the Project would serve planned land use changes and redevelopment projects that are disclosed and incorporated into land use agency general plans and subsequent amendments thereto, Project implementation would not support growth beyond planned levels or in areas not planned for development by the land use agencies. Because the Project would not cause population growth or necessitate increased housing, no impact would occur.

b) **No Impact.** No residences are within the Project site. The Project would not displace any residential housing or necessitate the construction of housing in other places. Because no residences are within the Project site and the Project would not displace or necessitate construction of replacement housing, no impact would occur.

1.15 Public Services

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
PUBLIC SERVICES.				
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:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion

a) **No Impact.** The Project proposes water treatment facility improvements and would not include residential or commercial development that would directly or indirectly induce population growth. The Project would serve existing water system customers. The Project is located adjacent to a fire station and will not affect the fire station or access to or from the fire station. The Project would not require new or expanded fire and police protection, schools, parks, or other facilities. Thus, the Project would not require new or expanded governmental facilities. In addition, the Project would not indirectly induce unplanned population growth (see Section 1.14 Population and Housing). Because the Project would not create new demands for services or affect the ability of local service providers to maintain acceptable service ratios, response times, or other performance objectives for services, no impact would occur.

1.16 Recreation

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
RECREATION.				
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 -b) **No Impact.** The Project would not increase population (see Section 1.14, Population and Housing). Therefore, the Project would not increase use of existing neighborhood or regional parks or recreational facilities. Recreational areas located less than 0.5 mile from the Project site include Sobrante Ridge Regional Preserve, Pinole Park, La Moine Park, Wildcat Canyon Park, Fairmead Park, and Kennedy Plaza. The use of these surrounding recreational facilities and areas would not increase because of the Project. In addition, the Project would not construct recreational facilities or be required to construct or expand recreational facilities that may have an adverse physical effect on the environment. Because of the foregoing reasons, no impact would occur.

1.17 Transportation

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
TRANSPORTATION. Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☒	☐	☐	☐
b) Conflict or be inconsistent with CEQA Guidelines 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

a) **Potentially Significant Impact**. Construction would generate traffic at the Project site. Construction traffic is anticipated to occur during daytime construction hours at the SOWTP site. Truck traffic would access the Project site during construction from Interstate 80 via Amend Road, Valley View Road, and San Pablo Dam Road. Truck traffic would also access the Project site during construction via Appian Way and via San Pablo Dam Road from Highway 24. Valley View Road, San Pablo Dam Road, and Appian Way are arterial roadways, Amend Road is a collector roadway, and Highway 24 is a freeway (Conta Costa County, 2017). San Pablo Dam Road, Valley View Road, and Amend Road are Proposed Class II Facilities in the Contra Costa County Bicycle Facilities Network (Contra Costa County, 2010e). The Central North Aqueduct pipeline construction would require temporary lane or road closures within La Honda Road, D'Avila Way, San Pablo Dam Road, El Portal Drive, Rollingwood Drive, Road 20, and San Pablo Avenue during pipeline trenching and installation within the roadway. Limited nighttime construction could be required along portions of the Central North Aqueduct pipeline. The temporary lane and increased traffic during Project construction could potentially conflict with a traffic circulation plan, policy, or ordinance. Because the impact on traffic circulation from the increased construction traffic and lane closures would be potentially significant, the impact will be described further in the EIR.

b) **Potentially Significant Impact.** Project construction and potentially operation would generate an increase in vehicle miles travelled (VMT). Because the impact of the increase in VMT would be potentially significant, the impact will be described further in the EIR.

c) **Potentially Significant Impact.** The Central North Aqueduct pipeline will be constructed within roadways and will require temporary lane closures during trenching and pipeline installation as describe in a) above. The Project would also temporarily add

construction truck traffic on local roads, such as Appian Way and San Pablo Dam Road. The temporary lane closures, road repaving after pipeline installation, and increased truck traffic could be a safety hazard. Because the impact on local roads would be potentially significant, the impact will be described further in the EIR.

d) **Potentially Significant Impact.** Construction activities during Phase 1 of the Project would be confined to the SOWTP site, but construction of the Central North Aqueduct pipeline during Phase 2 of the Project would require in-road construction with temporary lane and potential road closures and detours. The temporary lane closures or detours could affect emergency access during construction within the roadway. Because the impact of temporary lane or road closures could affect emergency access, the impact would be potentially significant and will be discussed further in the EIR.

1.18 Tribal Cultural Resources

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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:				
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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☒	☐	☐	☐

Discussion

A i-ii) **Potentially Significant Impact**. No tribal cultural resources are known to occur within the Project site. A positive result from the Native American Heritage Commission Sacred Lands File was received on May 18, 2021. As part of the cultural resources review of the Project under CEQA, information is being requested on behalf of EBMUD about potential tribal cultural resources (as defined by Public Resources Code Section 21074) that may be near the Project site. Because the impact on tribal cultural resources would be potentially significant, the impact will be described further in the EIR.

1.19 Utilities and Service Systems

Environmental Impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the 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) **No Impact**. The Project proposes improvements to the SOWTP water treatment processes, and the EIR will focus on evaluating the potential impacts of those improvements. The Project would not require or result in relocation or construction of any other utilities, including new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunication facilities, other than those water treatment facilities that are part of the Project and the subject of this environmental review. Because other public service utilities would not be affected, no impact would occur.

b) **No Impact.** Because the Project would improve treatment of existing available water supplies and would not have any adverse impacts associated with availability of supplies, no impact would occur.

c) **No Impact.** Because the Project would not generate any wastewater and would not affect local wastewater treatment providers, no impact would occur.

d) **Less than Significant.** Project construction would generate solid waste that would require disposal at a landfill, primarily waste generated from demolition of structures. The Keller Canyon Landfill, which is the closest available solid waste facility to the Project site, has a permitted capacity of approximately 3,500 tons of solid waste per day and, as of November 2004 (the most recent assessment date), a remaining permitted capacity of 63 million cubic yards (CalRecycle, 2019). Thus, adequate landfill capacity exists in the Project area to accommodate the construction debris that would be generated, and the Project would not impair attainment of solid waste reduction goals.

The 2019 California Green Building Standards Code (CalGreen) requires that at least 65 percent of job site debris that is generated by most types of building projects be recycled, reused, or otherwise diverted from landfill disposal (Contra Costa County, 2021). CalGreen requires submission of plans and reports to verify post-project that these goals were met and provides lists of numerous construction and demolition processing facilities. Because the Project would meet the CalGreen requirements and divert the majority of the construction waste, and because the nearest landfill would have capacity to take Project waste, the Project would not general solid waste in excess of state or local standards or impair the attainment of solid waste reduction goals and the impact would be less than significant.

e) **No Impact.** Because the Project would comply with all applicable regulations regarding solid waste, no impact would occur.

1.20 Wildfire

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

Discussion

a) **No Impact**. The Project site is within a local responsibility area and is not within a very high fire hazard severity zone. The Project site is approximately 1,000 feet south from a local responsibility very high fire hazard severity zone (CALFIRE, 2009). Project construction would be within the Project site and a public right-of-way for the Central North Aqueduct pipeline work. Work within roadways that would require lane or road closures would be coordinated with emergency providers. Because the Project would not substantially impair an adopted emergency response or emergency evacuation plan, no impact would occur.

b) **Potentially Significant Impact**. Conditions at the Project site could be affected by slope, prevailing winds, and other factors that could increase wildfire risk to workers at the SOWTP and nearby residents during Project construction. Construction equipment can generate fires from hot exhaust gases or from contact with the hot surfaces of exhaust systems. The geography, weather patterns, and vegetation in the Project area provide ideal conditions for recurring wildfires (Contra Costa County, 2018). Grazing is currently conducted on the site to manage wildfire risk within the grassland areas where construction is proposed. Project operation would remove grassland vegetation and reduce the long-term wildfire risk within the area of Phase 1 improvements. Because the impact of increased risk of wildfire during construction would be potentially significant, this will be described further in the EIR.

c) **No Impact.** Because the Project would not require installation of infrastructure that would exacerbate wildfire risk (e.g., roads, firebreaks, power lines, or other utilities), no impact would occur.

d) **Potentially Significant Impact.** Although Project operations would not increase wildfire risk, construction activities could increase the risk of wildfire. Additionally, the new buildings proposed at the SOWTP would be approximately 1,000 feet from a very high fire hazard severity zone. Because the Project is in proximity to a very high fire hazard severity zone, the impact from downstream flooding or landslides related to post-fire instability or drainage changes would be potentially significant will be described further in the EIR.

1.21 Mandatory Findings of Significance

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

Discussion

a) **Potentially Significant Impact.** As previously stated in Section 1.4 the Project could have a potentially significant impact on riparian habitat and other natural communities, including state and federally protected wetlands, and potential conflicts with local policies and ordinances protecting biological resources. The Project also potentially could cause a substantial adverse change on historical and archaeological resources or disturb human remains. The impacts could be potentially significant and will be addressed further in the EIR.

b) **Potentially Significant Impact.** Contra Costa County, the City of Richmond, and other relevant agencies such as Caltrans would be contacted during preparation of the EIR, to identify other planned projects in the Project vicinity. Other EBMUD projects in the vicinity also would be considered. Because the impact of the proposed Project and cumulative projects are potentially cumulatively significant, the impact will be addressed further in the EIR.

c) **Potentially Significant Impact**. The Project could adversely affect human beings directly and/or indirectly, from air quality impacts, hazardous material use, noise generation, emergency access impacts, and potential wildfire impacts. Because the impact on human beings would be potentially significant, the impact will be addressed further in the EIR.

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Appendix A.3 – Public Comments Received on the Notice of Preparation and Initial Study

List of Commenters on the NOP

The following agencies and individuals submitted the attached comments on the Sobrante Water Treatment Plant Reliability Improvements Project Notice of Preparation:

Commenter	Agency	Date
State Agency		
Cody Campagne	Native American Heritage Commission	March 15, 2022
Mark Leong	California Department of Transportation, District 4	April 11, 2022
Brian McAloon	Department of Toxic Substations Control	April 11, 2022
Individuals		
Pat Fihn		March 15, 2022
Adrian Lembert		March 24, 2022
Susanne M. Taylor		March 24, 2022
Ingrid Nielsen		April 9, 2022
Ed and Susanne Taylor		April 10, 2022

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NATIVE AMERICAN HERITAGE COMMISSION

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Ohlone-Costanoan

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Yokayo Pomo, Yuki, Nomlaki

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March 15, 2022

Stella Tan
East Bay Municipal Utility District
375 Eleventh Street, MS 701
Oakland, CA 94607-4240

Re: 2022030308, Sobrante Water Treatment Plant Reliability Improvements Project, Contra Costa County

Dear Ms. Tan:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

a. A brief description of the project.

b. The lead agency contact information.

c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).

d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

a. Alternatives to the project.

b. Recommended mitigation measures.

c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

a. Type of environmental review necessary.

b. Significance of the tribal cultural resources.

c. Significance of the project's impacts on tribal cultural resources.

d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

a. Whether the proposed project has a significant impact on an identified tribal cultural resource.

b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:

a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.

b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.

b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.

c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Cody.Campagne@nahc.ca.gov.

Sincerely,

Cody Campagne

Cody Campagne
Cultural Resources Analyst

cc: State Clearinghouse

From:	Hernandez, Nick@DOT
To:	sowtp.improvements
Cc:	Leong, Mark@DOT; state.clearinghouse@opr.ca.gov
Subject:	Sobrante Water Treatment Plant Reliability Improvements Project
Date:	Monday, April 11, 2022 1:47:05 PM
Attachments:	image001.png image002.png SWTP NOP Caltrans.pdf

Hello Stella,

Thank you for the opportunity to review the Sobrante Water Treatment Plant Reliability Improvements Project NOP.

Please find attached Caltrans District 4 comments.

Please let us know if you have any questions.

Thank you,
Nick Hernandez *(he/him)*
Associate Transportation Planner, Local Development Review Branch
Office of Transit & Community Planning
Division of Transportation Planning & Local Assistance
California Department of Transportation, District 4
111 Grand Avenue | Oakland, CA 94612
Work cell: (510) 376-8116
Email: nick.hernandez@dot.ca.gov
www.dot.ca.gov/d4/
For real-time highway conditions: http://quickmap.dot.ca.gov/

California Department of Transportation

DISTRICT 4
OFFICE OF TRANSIT AND COMMUNITY PLANNING
P.O. BOX 23660, MS–10D | OAKLAND, CA 94623-0660
www.dot.ca.gov

April 11, 2022

SCH #: 2022030308
GTS #: 04-CC-2022-00537
GTS ID: 25914
Co/Rt/Pm: CC/80/5.33

Stella Tan, Project Manager
East Bay Municipal Utility District
375 Eleventh Street, MS 701
Oakland, CA 94607-4240

Re: Sobrante Water Treatment Plant Reliability Improvements Project Notice of Preparation (NOP)

Dear Stella Tan:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Sobrante Water Treatment Plant Reliability Improvements Project. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated and efficient transportation system. The following comments are based on our review of the March 2022 NOP.

Project Understanding

The project includes construction of new facilities to meet near-term and long-term demand. Phase 1 improvements would increase Sobrante Water Treatment Plant (SOWTP) capacity to 60 million gallons per day (MGD), and Phase 2 improvements would increase capacity further to 80 MGD. The project also includes demolition of the existing facilities. The Central North Aqueduct pipeline would be constructed under various locations in Contra Costa County, with 2,400 feet of a 72-inch-diameter pipeline crossing Interstate (I)-80 at the I-80/El Portal Drive interchange near El Sobrante. East Bay Municipal Utility District (District) will prepare a Draft Environmental Impact Report (DEIR) to analyze the impacts of this project.

Transportation Impact Fees

Please identify project-generated travel demand and estimate the costs of transit and active transportation improvements necessitated by the proposed project; viable funding sources such as development and/or transportation impact fees should also be identified. We encourage a sufficient allocation of fair share contributions toward

multi-modal and regional transit improvements to fully mitigate cumulative impacts to regional transportation. We also strongly support measures to increase sustainable mode shares, thereby reducing VMT.

Hydrology
Please document and mitigate any floodplain impacts. Additionally, explain any additional flooding impacts on existing adjacent properties.

Construction-Related Impacts
Potential impacts to Caltrans' Right-of-Way (ROW) from project-related temporary access points should be analyzed. Mitigation for significant impacts due to construction and noise should be identified. Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans. To apply, visit: https://dot.ca.gov/programs/traffic-operations/transportation-permits.

Prior to construction, coordination may be required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to the STN.

Utilities
Any utilities that are proposed, moved or modified within Caltrans' ROW shall be discussed. If utilities are impacted by the project, provide site plans that show the location of existing and/or proposed utilities. These modifications require a Caltrans-issued encroachment permit.

Lead Agency
As the Lead Agency, the East Bay Municipal Utility District is responsible for all project mitigation, including any needed improvements to the State Transportation Network (STN). The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.

Equitable Access
If any Caltrans facilities are impacted by the project, those facilities must meet American Disabilities Act (ADA) Standards after project completion. As well, the project must maintain bicycle and pedestrian access during construction. These access considerations support Caltrans' equity mission to provide a safe, sustainable, and equitable transportation network for all users.

Encroachment Permit
Please be advised that any permanent work or temporary traffic control that encroaches onto Caltrans' ROW requires a Caltrans-issued encroachment permit. As part of the encroachment permit submittal process, you may be asked by the Office of Encroachment Permits to submit a completed encroachment permit application package, digital set of plans clearly delineating Caltrans' ROW, digital copy of signed, dated and stamped (include stamp expiration date) traffic control plans, this comment letter, your response to the comment letter, and where applicable, the following items: new or amended Maintenance Agreement (MA), approved Design Standard Decision Document (DSDD), approved encroachment exception request, and/or airspace lease agreement. Your application package may be emailed to D4Permits@dot.ca.gov.

Please note that Caltrans is in the process of implementing an online, automated, and milestone-based Caltrans Encroachment Permit System (CEPS) to replace the current permit application submittal process with a fully electronic system, including online payments. The new system is expected to be available during 2022. To obtain information about the most current encroachment permit process and to download the permit application, please visit https://dot.ca.gov/programs/traffic-operations/ep/applications.

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, or for future notifications and requests for review of new projects, please email LDR-D4@dot.ca.gov.

Sincerely,

Mark Leong

MARK LEONG
District Branch Chief
Local Development Review

c: State Clearinghouse

From: McAloon, Brian@DTSC
To: sowtp.improvements
Cc: OPR State Clearinghouse; Kereazis, Dave@DTSC
Subject: Comments on NOP
Date: Monday, April 11, 2022 1:39:35 PM
Attachments: Sobrante Water Treatment Plant Reliability Improvements Project.pdf

Ms. Stella Tan,
Attached please find comments from the California Department of Toxic Substances Control (DTSC) regarding the *Notice of Preparation of a Draft Environmental Impact Report for the Sobrante Water Treatment Plant Reliability Improvements Project*.

Please let me know if you have any questions.

Thank you.

Brian McAloon
Project Manager
Site Mitigation and Restoration Program
916-255-3582
brian.mcaloon@dtsc.ca.gov
Department of Toxic Substances Control
California Environmental Protection Agency

Department of Toxic Substances Control

Jared Blumenfeld
Secretary for
Environmental Protection

Meredith Williams, Ph.D.
Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gavin Newsom
Governor

SENT VIA ELECTRONIC MAIL

April 11, 2022

Ms. Stella Tan
Project Manager
East Bay Municipal Utility District
375 Eleventh Street, MS 701
Oakland, CA 94607-4240
sowtp.improvements@ebmud.com

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE SOBRANTE WATER TREATMENT PLANT RELIABILITY IMPROVEMENTS PROJECT – DATED MARCH 11, 2022 (STATE CLEARINGHOUSE NO.: 2022030308)

Dear Ms. Tan:

The Department of Toxic Substances Control (DTSC) received a Notice of Preparation of a Draft Environmental Impact Report (EIR) for the Sobrante Water Treatment Plant Reliability Improvements Project (Project). The Lead Agency is receiving this notice from DTSC because the Project includes one or more of the following: groundbreaking activities, work in close proximity to a roadway, work in close proximity to mining or suspected mining or former mining activities, presence of site buildings that may require demolition or modifications, importation of backfill soil, and/or work on or in close proximity to an agricultural or former agricultural site.

DTSC recommends that the following issues be evaluated in the Hazards and Hazardous Materials section of the EIR:

1. The EIR should acknowledge the potential for historic or future activities on or near the project site to result in the release of hazardous wastes/substances on the project site. In instances in which releases have occurred or may occur, further studies should be carried out to delineate the nature and extent of the contamination, and the potential threat to public health and/or the environment should be evaluated. The EIR should also identify the mechanism(s) to initiate

any required investigation and/or remediation and the government agency who will be responsible for providing appropriate regulatory oversight.

2. Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL-contaminated soil DTSC, recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the project described in the EIR.

3. If any sites within the project area or sites located within the vicinity of the project have been used or are suspected of having been used for mining activities, proper investigation for mine waste should be discussed in the EIR. DTSC recommends that any project sites with current and/or former mining operations onsite or in the project site area should be evaluated for mine waste according to DTSC's 1998 *Abandoned Mine Land Mines Preliminary Assessment Handbook*.

4. If buildings or other structures are to be demolished on any project sites included in the proposed project, surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 *Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers*.

5. If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to *DTSC's 2001 Information Advisory Clean Imported Fill Material*.

6. If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the EIR. DTSC recommends the current and former agricultural lands be evaluated in

accordance with DTSC's 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)*.

DTSC appreciates the opportunity to comment on the EIR. Should you need any assistance with an environmental investigation, please visit DTSC's Site Mitigation and Restoration Program page to apply for lead agency oversight. Additional information regarding voluntary agreements with DTSC can be found at DTSC's Brownfield website.

If you have any questions, please contact me at (916) 255-3582 or via email at Brian.McAloon@dtsc.ca.gov.

Sincerely,

Brian McAloon
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substances Control

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

From: Pat Fihn
To: sowtp.improvements
Subject: Project timeline question
Date: Tuesday, March 15, 2022 1:37:37 PM

I have just read your website posting re: the Sobrante Water Treatment Plant Reliability Improvements Project. I am wondering why you are planning to complete Phase 1 in 2030 when demand is not expected until 2035?

From: Adrian Lembert
To: sowtp.improvements
Subject: Proposed Fence Design for El Sobrante Water Plant
Date: Thursday, March 24, 2022 10:58:00 PM

Hi Stella,

Thank you for today's Zoom meeting regarding expansion plans for El Sobrante Water Plant facility.

The currently proposed by architects fence design is seriously underwhelming and beyond disappointing. Security reasoning aside, the proposed basic chainlink fence with razor barb wire on top should be the last choice for completely residential neighborhood, like Amend Rd. Proposed chainlink fence resembles some correction facility, industrial factory, a commercial airport and a warehouse facility. Not something that belongs to what is currently considered a desirable neighborhood to move in. This proposed fence design and expanded facility visually so close to Amend Rd. will automatically lower property values in our neighborhood based on psychological effect of seeing this type of facility/fencing as a first impression upon entering to Amend Rd. Not to mention that the fact that there are no plans to create at least 10 to 20 feet wide 'Green Belt' with landscaping as a buffer zone between Amend Rd. and fencing is a urban design fail 101. Given a current opportunity there should also be a built sidewalk between Amend Rd. and fencing to improve walkability in our neighborhood in a similar way as on Valley View Rd. :

I strongly oppose current, aesthetically unpleasant fence design that will completely change the current scene of a beautiful field to something that resembles a correction facility with a razor barb wire chainlink fence. There are plenty other security fence options available that will be aesthetically pleasant and are more fitting in our fully residential surroundings.

The location of some of proposed water treatment structures so close to Amend Rd. is also surprising. Considering that they will be very visible from Amend Rd. itself. Why they are not designed to be further away from the street? Being more hidden from views and blending in better

with landscaping. Plenty of space in the field. I didn't get impression that some of design choices were made in consideration of how these design plans will negatively change our current neighborhood vibe. Proposed architectural design options are functional but severely lacking in being a part of creating a pleasant environment for local residents. Current landscape design proposal does absolutely nothing to hide the ugly chain link.

Also, were there any studies made of potentially increased background noise from newly built equipment?! Constant low frequency vibration humming from operation, etc.?! Proposed water plant expansion design alone will automatically decrease property values in immediate vicinity significantly. Therefore current fence design, its marked location and close, visible proximity of structures to Amend Rd. should be re-considered.

Orinda Water Treatment Plant has a full on sidewalk and trees planted in front of the fence and this portion of the fencing is not even in residential setting. Fencing itself is the same as proposed for Amend Rd. but the difference is that Amend Rd. IS full on residential neighborhood street setting, unlike a busy highway in Orinda or on Valley View Rd. Proposed and currently used by EBMUD chain link fencing is acceptable in non-residential areas, but this is not the case with Amend Rd. So the current fence design option and its location without an appropriate Green Belt as a buffer zone is aesthetically unfit for our neighborhood.

Sidewalk with planted trees in Orinda water facility:

Below are examples of aesthetically pleasant security fence design options for residential neighborhood, that will have insignificant cost difference compared to currently prosed by EBMUD fencing:

Extra security feature design without a razor bard wire:

Fences with a Green Belt and sidewalk between a street as a buffer zone:

Adrian Lembert

From: Sullivan, Sharla
To: SUSANNE/ED Taylor
Cc: sowtp.improvements
Subject: Re: Meeting Question
Date: Thursday, March 24, 2022 7:05:44 PM

Thanks for attending tonight, Suzanne! I was very happy to see you'd joined the meeting as we've been discussing the project conceptually for some time.

I am copying the project email on this correspondence to document your comment in relation to our NOP scoping community meeting this evening.

Thanks,

Sharla J. Sullivan (she/her/hers)
Community Affairs Representative
East Bay Municipal Utility District (EBMUD)
375 11th Street Oakland, CA
(510) 287-7208
Follow us @ebmud

From: SUSANNE/ED Taylor <edandsusanne@comcast.net>
Sent: Thursday, March 24, 2022 6:59:56 PM
To: Sullivan, Sharla <sharla.sullivan@ebmud.com>
Subject: Meeting Question

Hi, Sharla -

Unfortunately, audio problems and disconnections prevented us from talking with you during tonight's meeting. (I believe it's Firefox and my Chromebook, but it's a moot point now ;) Our comment was to follow up with Adrian Lembert's suggestion about the fencing -

We feel that he presented the problem correctly - it's very industrial and almost prison-like. We realize that security is a concern - especially based upon the amount of people that visit the land now that it's unfenced. Sabotage and vandalism are, of course, also valid concerns. But since it is a residential neighborhood that you will now be closer to, it really is an eyesore and should re-evaluated for maybe another type of fencing.

Thanks for letting our comments be heard :)

Susanne M. Taylor

From: Ingrid Nielsen
To: sowtp.improvements
Subject: NOP for SOWTP
Date: Saturday, April 9, 2022 8:09:47 AM

from: 5441 Amend Road
Regarding the NOP for the Sobrante Water Treatment Plant located at 5500 Amend Road

I was recently made aware of the EBMUD's plans, but have yet been able to find a link to the promised Zoom call recording. I am reacting with what information has been posted to EBMUD's website to date.

The proposed expansion would have a devastating effect on this area. What now feels like an open and mixed urban-rural neighborhood, would turn industrial and ugly. The open field is an asset to everyone in the area. The local horsemen come and ride their horses there, Blue Herons come there to hunt, a neighbor trains bomb-sniffing dogs, another is teaching his little boy to ride an 80cc bike. Vet techs from the pet hospital bring their pets here on their lunch breaks to play fetch.....the list goes on, and on. We enjoy sitting on our veranda and watching all these things - after the proposed changes our veranda will have a view of barb wire, concrete buildings and treatment/storage tanks.

We also enjoy all the wildlife that is attracted to the area (they often come and visit our property), for example
Turkey Vulture
Song sparrow
Bushtit
American Kestral
Red shouldered Hawk
Golden-Crowned sparrow
Cedar Waxwing
Huttons Vireo
California Scrub Jay
Northern Mockingbird
Great Blue heron
American Goldfinch
Lesser GoldFinch
California Towhee
Chestnut Backed Chickadee
Eurasian Collared Dove

House Sparrow
House Finch – Nesting
Dark Eye Junco
Anna's Hummingbird
White Crowned Sparrow
Hooded Oriole
Allen's Hummingbird
Ruby-Crowned Kinglet

Ongoing habitat disturbances will drive these birds away from the area.

We cannot object strongly enough to this NOP, the declaration alone has already impacted home values in the area, especially for the homes right across the street.

Noise Pollution, Air Pollution, aesthetic pollution, Odors, Increased traffic, Light pollution (Bright lights glaring all night...UGH). Years upon Years of construction. Lowered real estate value, and all of this right outside my front door? NO.

I not only live here but also run my two advertising agencies from this location, so the disturbances will impact my business as well as my home life.

We do not make these statements from an uneducated position, to date we have consulted with:
Real Estate Investment Firms on the current and future economic impact
Ex EBMUD employees who worked in water treatment
Real Estate lawyers
EIR specialists

We are also in the process of reaching out to the Sierra Club, the city council, and our neighbors (most of whom did not receive any notices).

Two things in closing. First, I invite any of you to come over to my home and have a cup of tea or a glass of wine in my front garden to truly understand what will be lost to us with the proposed changes.

The second and final item is we want information on how the public is going to be allowed to comment on the EIR (a standard practice), as we did not see that in the information that s currently available.

Sincerely,

Ingrid Nielsen
CEO
Buzzgen Media
5441 Amend Road
El Sobrante, CA 94803
O:510-235-0002

From: SUSANNE/ED Taylor
To: sowtp.improvements
Subject: Additional Questions Regarding April 24th Presentation - Amend Road Site
Date: Sunday, April 10, 2022 6:09:32 PM

Hello!

We live across the street from the water plant on Amend Road. We attended the presentation and have already sent some initial questions regarding the presentation on April 24th via Sharla. We have some additional concerns/questions...

1. Plant fencing at the Amend Road site - Looking out of our home's second story, it appears that either of the two landscaping plans will result in a view of inside the plant. It seems that having a higher, solid fence (brick or similar style) or a higher berm would at least block some of the sight of ponds, equipment, etc. Neither of the presented landscaping plans seem to prevent looking at the equipment in the plant, which greatly reduces the residential community feeling.

2. Plant footprint/location at the Sobrante site - There seems to be a large amount of land that is being used for this expansion. Initially, it appeared that the surveyors were working in the middle of the field. Were the plans for the scope of the project changed to go all the way to the front of Amend Road? Is there a reason that the plant much extend to the front of the road? Are there alternate areas within the current property that will allow EBMUD to increase their plant size by using more of their existing land?

3. There is noise that currently comes from the plant. It appears that the noise will increase when the plant is enlarged, and it will now be closer to the neighborhood when it comes right up to the road. What noise reduction modifications are being planned to keep the sound to a minimum?

4. There is sometimes a "chlorine-type" smell coming from the plant. What are the plans to reduce the smell coming from a larger, closer plant?

5. This land was initially supposed to be a park for the Ditz-Crane neighborhood. It was then sold to the Boys and Girls club for their use, and then to a church for their use. It is zoned as Open Space by the City of Richmond. All of the previous owner's planned uses were allowed with the Open Space zoning. Since the promised park was never developed (although the money was donated for the park by the developer), what open space/park will now be available for the neighborhood to use for recreation? How will the new plant fit into the Open Space zoning? Will any applications for rezoning be opened for public comment?

Ed and Susanne Taylor

Appendix B – Sobrante Water Treatment Plant Reliability Improvements Project: Arborist Condition Report

APPENDIX B

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Sobrante Water Treatment Plant

Reliability Improvements Project

ARBORIST CONDITION REPORT

East Bay Municipal Utility District

Merrill Morris Partners · Landscape Architects & Planners

Merrill Morris

December 13, 2023

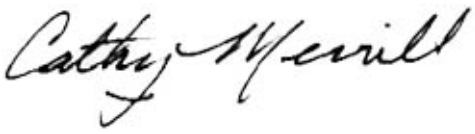
Susanne Heim
Panorama Environmental, Inc.
717 Market Street, Suite 400
San Francisco, CA 94103

RE: Final Arborist Condition Report for the EBMUD Sobrante Water Treatment Plant

Dear Susanne:

The Final Arborist Condition Report for the East Bay Municipal Utility District (EBMUD) Sobrante Water Treatment Plant Reliability Improvement Project is attached. The report was prepared according to the requirements of the project contract and scope of work for Task 2 – Arborist Condition Report.

Respectfully,



Cathy Merrill, President
Merrill Morris Partners
415-291-8960
cmerrill@merrill-morris.com

1.0 Introduction

1.1 Project Overview

East Bay Municipal Utilities District (EBMUD) is planning the Sobrante Water Treatment Plant (SOWTP) Reliability Improvements Project (Project) located at 5500 Amend Road, El Sobrante, California (Figure 1). The purpose of the Project is to increase the treatment capacity of the SOWTP to meet future demand, treat Folsom South Canal Connection (FSCC) water during droughts, reduce disinfection by-products, and improve treatment processes to reliably operate SOWTP at 60 million gallons per day (MGD) in the near-term and 80 MGD in the long-term.

1.2 Scope of Services

This Arborist Condition Assessment Report was prepared by Merrill Morris Partners to assist EBMUD in site planning for the Project This report includes:

- The results of the tree survey and inventory within the Project construction limits including the tree location and species (including native/protected species) (Refer to Attachment A: Tree Inventory and Assessment, Attachment B: Site Map and Tree Disposition Plan)
- A general assessment of the health of each tree inventoried (Attachment A: Tree Inventory and Assessment)
- Recommendations for tree removal based on health (Attachment A: Tree Inventory and Assessment)
- Maps and tables showing tree location, species, and health
- An evaluation of the potential construction effects on trees inventoried (Attachment B: Site Map and Tree Disposition Plan)
- Preliminary guidelines for tree protection and preservation during Project design (Section 6: Recommendations)

Merrill Morris

Figure 1 Project Vicinity

2.0 Project Description

The Project would include new facilities that have been divided into a Phase 1 and Phase 2 sequencing to meet near-term and long-term demand, respectively. The Phase 1 improvements would increase capacity to 60 MGD, and Phase 2 improvements would further increase capacity up to 80 MGD (EBMUD 2021). Refer to Attachment B for a figure of the project area.

The Phase 1 facilities include:

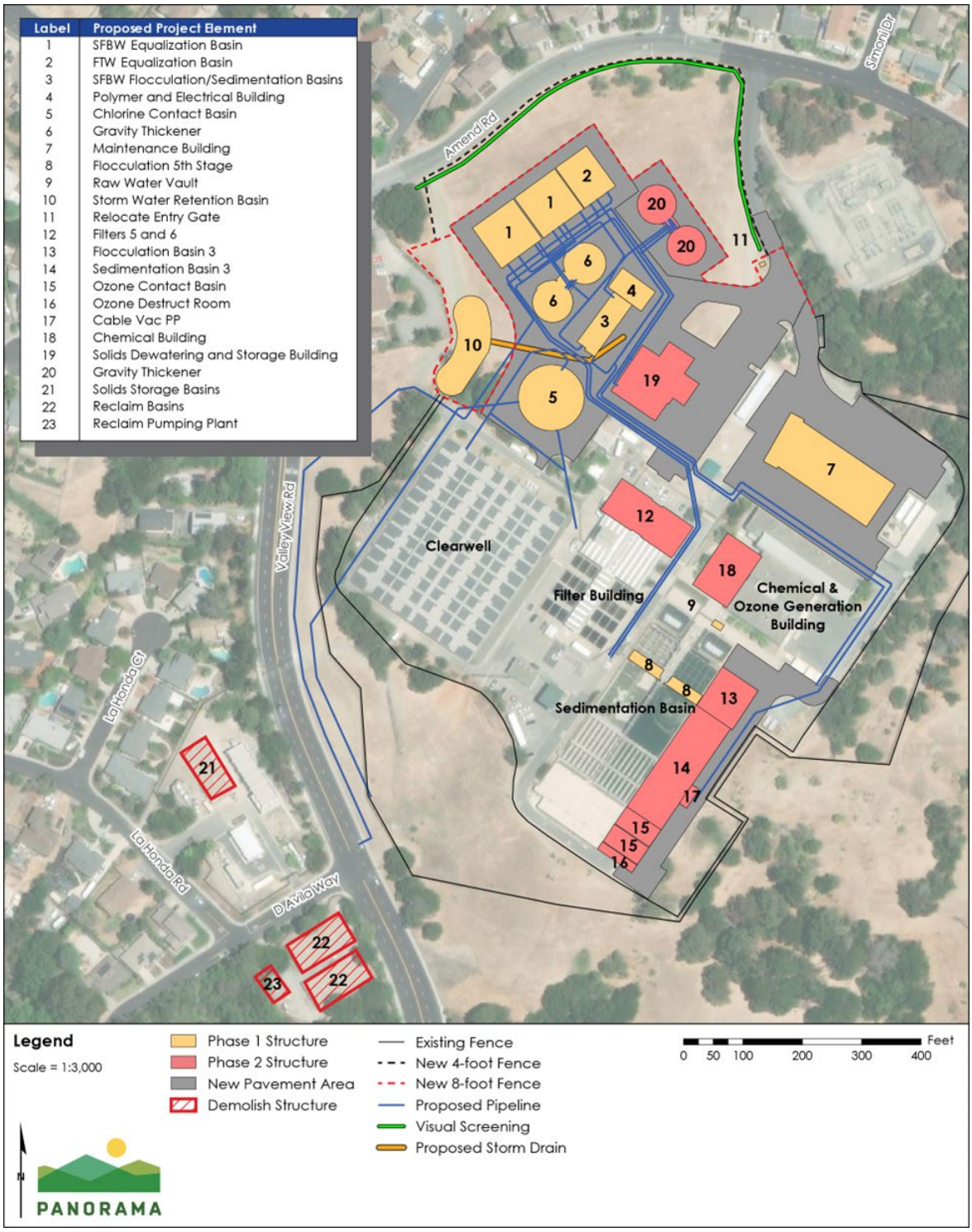
- Raw water control valve and flow meter
- Two spent filter backwash water (SFBW) equalization basins
- Filter-to-waste (FTW) equalization basin
- Two gravity thickeners
- Two SFBW flocculation and sedimentation basins
- Pipelines for the SFBW reclaim and solids handling facilities
- Chlorine contact basin (CCB)
- Inlet/outlet pipelines for clearwell and hydraulic weir
- Polymer and power building
- Fifth stage flocculation for the existing two flocculation basins
- Storm drain pipelines and bioretention pond
- Maintenance building that incorporates existing maintenance buildings/shops
- Entrance gate, security fencing, and lighting
- Access and maintenance road for new facilities

Phase 2 facilities include:

- One flocculation basin
- One sedimentation basin with tube settlers
- Two new dual-media filters and associated pipe and operation gallery
- Two ozone contact basins
- An ozone destruct room
- Chemical building
- Central North Aqueduct (outside of SOWTP property)

The Project also includes demolition of the existing wash water settling basins, reclaim pumping plant, solids pumping plant, solids detention basins, and related vaults, mechanical, and electrical equipment after completion of Phase 1. Figure 2 shows the location of Phase 1 and Phase 2 improvements.

Figure 2 - Phase 1 and Phase 2 Project Elements



3.0 Tree Inventory and Assessment Methods

Merrill Morris surveyed the site to tag trees and assess tree health during four site visits: 4/21/2021, 5/7/2021, 6/15/2021, 7/6/2021 and 10/17/2023. The tree survey and assessment were conducted by Merrill Morris staff members Maggie Leighly, Landscape Architect and Arborist; and Monty Hill, Landscape Architect and Matteo Lovik, Consulting Arborist from SBCA Tree Consulting. The extent of the tree survey area was provided by EBMUD. The tree survey and condition assessment consisted of a visual inspection from the ground and included the following steps:

1. Identifying tree species.
2. Attaching a numerically coded metal tag on the trunk of each tree.
3. Recording the tree's location on a map.
4. Measuring the trunk diameter at a point 54-inches above grade.
5. Evaluating the health and structural condition using a scale of 0 – 5. See Table 1 below.
6. Noting defects in structure, insects, diseases, and other aspects of tree development.
7. Assessing tree suitability for preservation as poor, fair, good.

TABLE 1: TREE HEALTH AND STRUCTURAL CONDITION

5	A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
4	Tree with slight decline in vigor, small amount of twig dieback, or minor structural defects that could be corrected.
3	Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
2	Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
1	Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormic shoots (secondary shoots that arise along the trunk and branches); extensive structural defects that cannot be abated.

0	Tree is dead.

Following the survey and assessment, GIS location survey data was provided by EBMUD. The data was referenced to the trees using the numerical tree tags Merrill Morris had placed on the trees.

4.0 Results

4.1 Trees Assessed

A total of 195 trees were surveyed in the areas outlined by the EBMUD Project survey area.

4.2 Tree Health/Condition Assessment

At the time of the survey, rainfall totals were well below normal for several years previous. All trees surveyed showed signs of drought stress, and many are in decline. The following indicators of poor tree condition/health were noted during the tree survey:

- Aphid infestation, with curled, deformed leaves and sooty mold on leaves, branches, and trunk.
- Weeping wounds, stained bark, and areas of damaged or missing bark suggest the presence of bacterial and fungal pathogens.
- Damage from incorrect pruning, including heading cuts, flush cuts, stub cuts, and torn branches.
- Damage to trees from string trimmers, equipment, and vehicles visible on tree trunks and branches.
- Structures, temporary buildings, and construction staging areas located close to trees, with excavation and material storage within the trees' critical root zone and dripline.
- Trees on slopes outside the perimeter fence have exposed roots and partially buried trunk flare from soil erosion.

5.0 Construction Impacts

Direct Construction Impacts

A total of 78 trees are directly within construction areas of the Project and would be removed for Project construction based on the preliminary design provided by EBMUD in December 2022. 48 trees are located adjacent to the proposed Project construction area and should be protected, if feasible.

The 48 trees adjacent to the Project work areas that are recommended for protection include five mature coast live oaks located at the west end of Amend Road (Tree Nos. 1 to

5with 12- to 72-inch trunk diameters)and three coast live oaks proximate to future chemical building (with 6.5 to 8-inch trunk diameters). Refer to Attachment A: Tree Inventory and Assessment and Attachment B: Site Map and Tree Disposition Plan.

Potential Impacts from Root Damage Due to Trenching

As part of Project construction, water pipelines are proposed along the south and east sides of the existing clearwell. A total of 2 trees are located within 10 feet of the trench for new water pipelines or have a canopy that extends into the trench area. Trees adjacent to the area of trenching may have roots that extend within the pipeline construction area and the trees could be damaged by trenching of the pipeline. For this report, it was assumed that construction trenches would extend 18-inches from the outside diameter of the pipeline.

Pipeline locations are based on those provided by EBMUD in April 2023. Refer to Attachment A: Tree Inventory and Assessment and Attachment B: Site Map and Tree Disposition Plan, which lists all trees that could be impacted by the Project construction and shows the location of the proposed pipelines.

6.0 Recommendations

6.1 Recommendations for Tree Removal

It is recommended that trees in poor health showing signs of disease (e.g., Tree 29) per Attachment A: Tree Inventory and Assessment be further reviewed by an arborist specializing in pathogen identification and treatment. Any tree with untreatable or fatal diseases should be removed, as many disease pathogens can spread from a host tree to nearby healthy trees.

Trees within the footprint of the Project construction will need to be removed during project construction. Additionally, the roots of trees adjacent to the Project construction could be impacted by grading and construction. It is recommended that trees adjacent to grading and construction be monitored for overall health to ensure survival. Although the final location and extent of the Project facilities are not final, the trees likely to be impacted as indicated in the current Project design and site layout (December 2022) are indicated on Attachment B: Site Map and Tree Disposition Plan.

6.2 Protected Trees

The northern portion of the SOWTP is located within the City of Richmond. The remaining portion of the SOWTP is located in unincorporated Contra Costa County.

Pursuant to California Government Code section 53091, EBMUD—as a local agency and utility district serving a broad regional area—is not subject to building and land use zoning ordinances (e.g., tree ordinances) for projects involving facilities for the production, generation, storage, or transmission of water. However, it is the practice of EBMUD to work with local jurisdictions and neighboring communities during project planning, and to consider local environmental protection policies for guidance. For that reason, the City of Richmond's and Contra Costa County's tree protection ordinances are summarized within this section and are incorporated into this report.
Protected trees within Contra Costa County are defined as follows per 816-6.6004 - Protected trees:

> *Where the tree to be cut down, destroyed or trimmed by topping is adjacent to or part of a riparian, foothill woodland or oak savanna area, or part of a stand of four or more trees, measures twenty inches or larger in circumference (approximately 6.5 inches in diameter) as measured four and one-half feet from ground level, and is included in the following list of indigenous trees: Acer macrophyllum (Bigleaf Maple), Acer negundo (Box Elder), Aesculus califonica (California Buckeye), Alnus Rhombifolia (White Alder), Arbutus menziesii (Madrone), Heteromeles arbutifolia (Toyon), Juglans Hindsii (California Black Walnut), Juniperus californica (California Juniper), Lithocarpus densiflora (Tanoak or Tanbark Oak), Pinus attenuata (Knobcone Pine), Pinus sabiniana (Digger Pine), Platanus Racemosa (California Sycamore), Populus fremontii (Fremont Cottonwood), Populus trichocarpa (Black Cottonwood), Quercus agrifolia (California or Coast Live Oak), Quercus chrysolepis (Canyon Live Oak), Quercus douglasii (Blue Oak), Quercus kelloggii (California Black Oak), Quercus lobata (Valley Oak), Quercus wislizenii (Interior Live Oak), Salix lasiandra (Yellow Willow), Salix laevigata (Red Willow), Salix lasiolepis (Arroyo Willow), Sambucus callicarpa (Coast Red Elderberry), Sequoia sempervirens (Coast Redwood), Umbellularia californica (California Bay or Laurel).*

Within any undeveloped property or area designated for recreation or open space area protected trees also include:

- Any tree measuring 20 inches or larger in circumference, measure 4.5 feet from ground level.
- Any multi-stemmed tree with the sum of circumferences measuring 40 inches or larger, measured 4.5 fee from ground level.
- Any significant grouping of trees, including groves of four or more trees.

Protected Trees as defined by the ordinances are indicated on Attachment A: Tree Inventory and Assessment. A total of 33 protected trees would be removed because they are within the footprint of Project facilities.

6.3 Recommendations for Tree Preservation

Trees recommended for protection during construction are indicated on Attachment B: Site Map and Tree Disposition Plan. Tree Nos. 1 to 5 are mature coast live oak trees with trunk diameters of 12 inches to 72 inches and should be incorporated as a part of the Project's aesthetic design and maintained to screen new and existing facilities from the adjacent residential community to the extent feasible.

6.4 Preliminary Tree Protection Guidelines

Once the final design of the Project's construction plans is available, the plans should be reviewed by an arborist to make a final recommendation regarding which trees can be retained and which should be removed. To maximize the survivability of trees to be retained, a Tree Protection Plan should be developed and implemented prior to the commencement of any construction activities, in consultation with EBMUD and in consideration of EBMUD practices and procedures.

ATTACHMENT A: TREE INVENTORY AND ASSESSMENT

EBMUD - SOBRANTE WATER TREATMENT PLANT IMPROVEMENTS

TREE NO.	BOTANIC NAME	COMMON NAME	DBH	HEALTH / CONDITION (0=dead, 5=excell-ent)	N=NATIVE I=INVASIVE	PROTECTED TREE STATUS	SUITABILITY FOR PRESERVATION	TREE DISPOSITION STATUS (SEE ATTACHEMENT C: TREE DISPOSITION PLAN)	COMMENTS
									LV=low vigor NV=normal vigor CH=chlorosis T=topped LT=liontailed
									CD=codominant leader C=canker DB=dieback EG=epicormic growth HC=heading cut
									MD=mech. damage IB=included bark BT=buried trunk flare ID=insect damage AG=adventitious growth
1	Quercus agrifolia	Coast live oak	72"	4	N	Y	good	Protect	CD
2	Quercus agrifolia	Coast live oak	12"	3	N	Y	good	Protect	unbalanced crown
3	Quercus agrifolia	Coast live oak	36"	3	N	Y	good	Protect	
4	Quercus agrifolia	Coast live oak	20"	4	N	Y	good	Protect	NV
5	Quercus agrifolia	Coast live oak	30"	3	N	Y	good	Protect	DB, IB
6	Quercus agrifolia	Coast live oak	6"	2	N		poor	Remove - Project	LV, disturbed by recent road install
7	Salix laevigata	Red willow	20"	3	N	Y	poor		recent bad, excessive pruning, 50% of crown removed
8	Quercus agrifolia	Coast live oak	5"	2	N		poor		DB, C, incorrect pruning
9	Quercus agrifolia	Coast live oak	5"	1	N		poor	Remove - Project	recent bad excessive pruning, 50% of crown removed
10	Salix laevigata	Red willow	5"	2	N		poor/fair	Protect	MD, IB, recent damage, bad excessive pruning
11	N/A	-		-	-		-		removed by recent work
12	Quercus agrifolia	Coast live oak	5"	2	N		fair	Protect	MD
13	Salix laevigata	Red willow	24"	2	N	Y	fair	Protect	recent pruning damage
14	Quercus agrifolia	Coast live oak	5"	2	N		fair	Protect	recent pruning damage
15	Salix laevigata	Red willow	18"	3	N	Y	fair	Protect	nest destroyed, recent pruning damage
16	Acer negundo	Boxelder	3x10"	3	N	Y	good	Protect	recent pruning damage
17	Quercus agrifolia	Coast live oak	5"	2	N		poor		C, split bark, recent pruning damage
E17	Sequoia sempervirens	Coast redwood	24"	2	N	Y	poor	Existing	AG, HC, DB, compacted soil, construction staging over roots, terminal leader dieback
18	Quercus agrifolia	Coast live oak	6"	2	N		poor		C, split bark, poor pruning
19	Quercus agrifolia	Coast live oak	6"	2	N		poor		C, split bark, poor pruning
E19	Pinus halepensis	Aleppo pine	36"	2		Y	poor	Potential Trench Impact	DB, ID, weeping sap, terminal leader dieback, bad pruning
20	Quercus agrifolia	Coast live oak	6"	2	N		poor		C, split bark, recent pruning damage
21	Quercus agrifolia	Coast live oak	6"	2	N		poor		C, split bark, recent pruning damage
22	Quercus agrifolia	Coast live oak	24"	3	N	Y	fair	Protect	C, IB, CD, LV, split bark
23	Quercus agrifolia	Coast live oak	8"	1	N	Y	poor	Existing	bark wound, leaning
24	Quercus agrifolia	Coast live oak	12"	4	N	Y	good	Protect	CD, IB, DB, BT
25	Sequoia sempervirens	Coast Redwood	20"	3	N	Y	fair	Potential Trench Impact	LV, terminal leader dieback, twig dieback
26	Pinus halepensis	Aleppo pine	18"	3			fair	Potential Trench Impact	CD, girdled roots
E26	Quercus agrifolia	Coast live oak	16"	2	N	Y	fair	Remove - Project	ID, HC, sooty mold
27	Quercus agrifolia	Coast live oak	10"	3	N	Y	poor	Potential Trench Impact	ID
28	Quercus agrifolia	Coast live oak	10"	3	N	Y	poor	Potential Trench Impact	shaded by adjacent trees
29	Pinus halepensis	Aleppo pine	22"	2			poor	Potential Trench Impact	CD, DB, ID, girdled roots, uneven crown, in decline
E29	Quercus agrifolia	Coastal live oak	17"	2		Y	poor	Remove - Project	bark disease makes ID unclear, C, DB, EG, WP, ID
30	Pinus halepensis	Aleppo pine	24"	2			poor	Potential Trench Impact	DB, girdled roots
31	Pinus halepensis	Aleppo pine	28"	2			poor	Remove - Project	branches removed on one side, uneven crown
32	Eucalyptus nicholii	Narrow-leaf peppermint	30"	2			poor	Remove - Project	DB, dead branches
33	N/A	-		-	-		-	N/A	tagged tree removed for temporary road construction
34	Eucalyptus nicholii	Narrow-leaf peppermint	60"	4			good	Remove - Project	NV, multi stem
35	Quercus chrysolpsis	Canyon live oak	5"	1	N		poor	Remove - Project	shaded by adjacent trees
36	Quercus agrifolia	Coast live oak	21"	3	N	Y	fair	Remove - Project	shaded by adjacent trees
37	Quercus agrifolia	Coast live oak	22"	3	N	Y	fair	Remove - Project	CD, IB, split bark
38	Quercus agrifolia	Coast live oak	5"	2	N		poor	Remove - Project	
39	Quercus agrifolia	Coast live oak	8"	2	N	Y	poor	Remove - Project	CD, IB
40	Quercus agrifolia	Coast live oak	17"	3	N	Y	poor	Remove - Project	CD, DB
41	Quercus agrifolia	Coast live oak	8"	2	N	Y	fair	Remove - Project	ID, shaded by adjacent trees
42	Pinus brutia var eldarica	Afghan pine	24"	2	N		poor	Remove - Project	DB, CD, weeping sap, exposed soil
43	Quercus agrifolia	Coast live oak	8"	2	N	Y	poor	Remove - Project	DB, shaded by adjacent trees
44	Cedrus atlantica	Atlas cedar	20"	3		Y	fair	Remove - Project	wound
45	Quercus agrifolia	Coast live oak	5"	1	N		poor	Remove - Project	LV, DB
46	Quercus agrifolia	Coast live oak	5"	2	N		poor	Remove - Project	C
47	Quercus agrifolia	Coast live oak	7"	2	N	Y	poor	Remove - Project	ID, DB, shaded by adjacent trees

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TREE NO.	BOTANIC NAME	COMMON NAME	DBH	HEALTH / CONDITION (0=dead, 5=excell-ent)	N=NATIVE I=INVASIVE	PROTECTED TREE STATUS	SUITABILITY FOR PRESERVATION	TREE DISPOSITION STATUS (SEE ATTACHEMENT C: TREE DISPOSITION PLAN)	COMMENTS
									LV=low vigor NV=normal vigor CH=chlorosis T=topped LT=liontailed
									CD=codominant leader C=canker DB=dieback EG=epicormic growth HC=heading cut
									MD=mech. damage IB=included bark BT=buried trunk flare ID=insect damage AG=adventitious growth
48	Cupressus macrocarpa	Monterey cypress	33"	1	N		poor	Remove - Project	thin crown, declining
49	Quercus agrifolia	Coast live oak	20"	3	N	Y	fair	Remove - Project	DB, MD, weeping wound
50	Quercus agrifolia	Coast live oak	17"	4	N	Y	good	Remove - Project	HC, DB, goat/deer browsed
51	Quercus chysolepis	Canyon live oak	7"	3	N	Y	fair	Remove - Project	DB, MD, shaded by adjacent trees
52	Heteromeles arbutifolia	Toyon	4,4,3,2,2"	2	N	Y	poor	Remove - Project	
53	Callistemon viminalis	Bottlebrush	8"	1			poor	Remove - Project	DB, few leaves
54	Quercus agrifolia	Coast live oak	5"	3	N		fair	Protect	DB, suckering growth
55	Quercus agrifolia	Coast live oak	9"	3	N	Y	fair	Protect	DB, BT
56	Quercus agrifolia	Coast live oak	7"	3	N	Y	fair	Protect	HC, BT
57	Heteromeles arbutifolia	Toyon	4"	3	N		good	Protect	ID
58	Quercus agrifolia	Coastal live oak	2"	2	N		fair	Protect	
59	Pittosporum undulatum	Victorian box	5x3"	2	CAL-IPC Rating:		fair	Protect	DB, suckering growth, shaded out, spread by birds and animals
60	Arbutus unedo	Strawberry tree	3"	3	N		good	Protect	
61	Heteromeles arbutifolia	Toyon	4"	3	N		good	Protect	
62	Quercus agrifolia	Coast live oak	13"	3	N	Y	good	Remove - Project	NV
63	Malus sp.	Apple	7"	3			fair	Remove - Project	oozing wounds from pruning, bad pruning, codling moth, productive fruit
64	Quercus agrifolia	Coastal live oak	12"	2	N	Y	poor	Remove - Project	CD, DB, MD, IB, ID, LV, exposed roots, mistletoe
65	Quercus agrifolia	Coastal live oak	9"	2	N	Y	poor	Remove - Project	IB, CH, LV, HC, DB, MD, incorrect pruning, split bark
66	Pyrus calleryana	Bradford pear	10"	3			fair	Protect	CD, IB, mistletoe, suckering growth
67	Sequoia sempervirens	Coastal redwood	20"	3	N	Y	fair	Protect	DB, bird nest
68	Liquidambar styraciflua	Sweetgum	9"	2			poor	Remove - Project	ID, BT, borken branch, dead leader
69	Quercus agrifolia	Coastal live oak	10"	3	N	Y	fair	Remove - Project	IB, C, BT, BT, LV, DB
70	Liquidambar styraciflua	Sweetgum	10"	3			good	Remove - Project	NV, FC
71	Liquidambar styraciflua	Sweetgum	12"	2			fair	Remove - Project	DB, LV
72	Liquidambar styraciflua	Coast live oak	4"	1	N		poor	Remove - Project	DB, MD, ID
73	Quercus agrifolia	Coast live oak	15"	3	N	Y	fair	Remove - Project	BT, sooty mold
74	Liquidambar styraciflua	Sweetgum	8"	4			good	Protect	LV
75	Arbutus unedo	Strawberry tree	3"	2	N		poor	Remove - Project	AG, DB, CH, incorrect pruning
76	Cedrus atlantica	Atlas cedar	12"	3			fair	Remove - Project	HC, ID, DB, LV, weeping sap, incorrect pruning, termnal leader dieback
77	Sequoia sempervirens	Coast redwood	15"	3	N	Y	fair	Remove - Project	BT, MD, DB, incorrect pruning
78	Sequoia sempervirens	Coast redwood	15"	3	N	Y		Remove - Project	MD, LV, BT, DB, incorrect pruning
79	Quercus agrifolia	Coast live oak	5"	1	N		poor	Remove - Project	incorrect pruning, shaded by adjacent trees
80	Cedrus atlantica	Atlas cedar	13"	2			fair	Remove - Project	DB, LV, terminal leader dieback
81	Quercus agrifolia	Coast live oak	20"	2	N	Y	poor	Remove - Project	LV, DB, patchy crown
82	Sequoia sempervirens	Coast redwood	12"	3	N	Y	fair	Remove - Project	DB
83	Heteromeles arbutifolia	Toyon	2"	3	N		fair/good	Remove - Project	BT, DB, shaded by adjacent trees
84	Sequoia sempervirens	Coast redwood	9"	2	N	Y	fair	Remove - Project	DB, MD, EG, bad pruning, crown lifted
85	Sequoia sempervirens	Coast redwood	16"	3	N	Y	fair	Remove - Project	HC, LV, DB, crown lifted, bad pruning
86	Sequoia sempervirens	Coast redwood	18"	3	N	Y	good	Remove - Project	LV, bad pruning
87	Quercus agrifolia	Coast live oak	16"	2	N	Y	fair	Remove - Project	LV, DB, IB, bird nest
88	Quercus agrifolia	Coast live oak	7"	1	N	Y	poor	Remove - Project	DB, ID, C, bad pruning, girdled by barbed wire
89	Quercus agrifolia	Coast live oak	8"	2	N	Y	fair	Remove - Project	DB, ID, C, bad pruning, sooty mold
90	Quercus agrifolia	Coast live oak	14"	4	N	Y	good	Protect	LV
91	Sequoia sempervirens	Coast redwood	12"	3	N	Y	fair	Protect	soil compaction, bad pruning, branches removed for construction, uneven crown
92	Quercus agrifolia	Coast live oak	15"	1	N	Y	poor	Existing	DB, LV, split bark, exposed roots, soil compaction, incorrect pruning
E93	Quercus agrifolia	Coast live oak	15,17"	2	N	Y	fair	Protect	CD, LV, IB, trunk girdling by fence
93	Quercus agrifolia	Coast live oak	8"	1	N	Y	poor	Existing	CD, IB, DB, LV, C, BT, woodpecker markings, shaded by adjacent trees, bird nest
94	Quercus agrifolia	Coast live oak	5"	1	N		poor	Existing	CD, IB, DB, LV, C, BT, woodpecker markings, shaded by adjacent trees
95	Quercus agrifolia	Coast live oak	8"	1	N	Y	poor	Existing	CD, IB, DB, LV, C, BT, woodpecker markings, shaded by adjacent trees
96	Quercus agrifolia	Coast live oak	4"	2	N		fair	Protect	HC, CD, shaded by adjacent trees

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									LV=low vigor NV=normal vigor CH=chlorosis T=topped LT=liontailed CD=codominant leader C=canker DB=dieback EG=epicormic growth HC=heading cut MD=mech. damage IB=included bark BT=buried trunk flare ID=insect damage AG=adventitious growth
97	Sequoia sempervirens	Coast redwood	7"	3	N	Y	good	Protect	DB, bad pruning
98	Pinus halepensis	Aleppo pine	26"	3			fair	Potential Trench Impact	LV, MD, IB, ID, weeping sap, poor branching
99	Quercus agrifolia	Coast live oak	12"	2	N	Y	fair	Potential Trench Impact	BT, DB, IB, cracked bark, bad pruning, leaning, unbalanced crown
100	Arbutus unedo	Strawberry tree	4"	1	N		poor	Potential Trench Impact	DB, LV, HC, BT
101	Arbutus unedo	Strawberry tree	4"	2	N		fair	Protect	DB, LV, not maintained
102	Arbutus unedo	Strawberry tree	4"	2	N		fair	Protect	DB, LV, not maintained
103	Sequoia sempervirens	Coast redwood	4"	1	N		poor	Potential Trench Impact	CD, MD, severe leaning, contruction staging over roots
104	Quercus agrifolia	Coast redwood	2"	2	N		poor	Potential Trench Impact	BT, LV, AG, shaded by adjacent trees
105	Arbutus unedo	Strawberry tree	3"	2	N		poor	Potential Trench Impact	DB, LV, bad pruning, unbalanced crown
106	Arbutus unedo	Strawberry tree	4"	2	N		poor	Potential Trench Impact	ID, AG, DB, HC, bad pruning
107	Arbutus unedo	Strawberry tree	3,3"	1	N		poor	Existing	IB, LV, DB
108	Arbutus unedo	Strawberry tree	3,1,1,1"	1	N		poor	Existing	HC, AG, DB
109	Arbutus unedo	Strawberry tree	3,3,1,1"	1	N		poor	Existing	DB, LV
110	Arbutus unedo	Strawberry tree	6,5"	2	N		poor	Existing	LV, DB, AG, excessive basal growth
111	Arbutus unedo	Strawberry tree	3"	3	N		fair	Protect	DB, new basal growth
112	Quercus agrifolia	Coast live oak	7"	3	N	Y	fair	Protect	MD, DB, AG
113	Quercus agrifolia	Coast live oak	4"	2	N		fair	Protect	C, AR, DB, FC, split bark
114	Quercus agrifolia	Coast live oak	13"	3	N	Y	fair to good	Protect	AG, DB, ID, IB, weeping sap
115	Quercus agrifolia	Coast live oak	7"	3	N	Y	fair to good	Protect	C, ID, CD, IB
116	Quercus agrifolia	Coast live oak	7"	1	N	Y	poor	Existing	DB, BT, AG, LV, ID, woodpecker markings
117	Cupressus macrocarpa	Monterey cypress	24,8,8"	3	N		fair	Protect	DB, LV, CD, IB, ID, BT, weeping sap
118	Salix lasiolepis	Arroyo willow	12"	3	N	Y	good	Remove - Project	In vernal watercourse, thicket, canopy needs cleaning
119	Salix lasiolepis	Arroyo willow	many	3	N		good		In vernal watercourse, thicket, canopy needs cleaning
120	Arbutus unedo	Strawberry tree	2"	3	N		good		DB, suckering growth
121	Arbutus unedo	Strawberry tree	1"	3	N		fair		DB, suckering growth
122	Sambucus mexicana	Elderberry, Tapiro	8"	3			good		HC, no form, suckering growth, weak branch attachment
123	Rhus integrifolia	Lemonade berry	2"	4	N		good		NV, HC, sheared, no form, suckering growth
124	Pyrus calleryana	Callery pear	14"	2			fair	Remove - Project	DB, EC, CD, IB, FC, MD, CS, BC
125	Pyrus calleryana	Callery pear	12"	3			fair	Remove - Project	MD, WP, CD, FC, DB, EC
126	Quercus agrifolia	Coast live oak	4",3"	2	N		fair	Remove - Project	MD, BC
127	Pyrus calleryana	Callery pear	19"	1			poor	Remove - Project	CD, MD, HC, IB, ID, BT, mistletoe
128	Quercus agrifolia	Coast live oak	3"	3	N		good	Remove - Project	HC, MD, CD, IB
129	Pinus halepensis	Aleppo pine	12"	3			fair	Remove - Project	IB, BT, EG, weeping sap
130	Pyrus calleryana	Callery pear	15"	3			fair		CD, IB, ID, HC, sooty mold
131	Pyrus calleryana	Callery pear	8"	2			fair		EG, ID, IB, DB, mistletoe
132	Pyrus calleryana	Callery pear	5"	2			fair		DB, CD, IB, ID, mistletoe, sooty mold
133	Zelkova serrata	Japanese zelkova	14"	3			good	Remove - Project	CL, needs pruning
134	Zelkova serrata	Japanese zelkova	28"	3			good	Remove - Project	CL, needs pruning
135	Pinus radiata	Monterey Pine	1.5"	3			good	Remove - Project	species not verified
136	Quercus agrifolia	Coast live oak	14"	3	N	Y	good	Remove - Project	
137	Zelkova serrata	Japanese zelkova	15"	3			good	Protect	IB, C, CL, DB, bad pruning
138	Zelkova serrata	Japanese zelkova	24"	3			good	Protect	IB, C, CL, DB, bad pruning
139	Pinus radiata	Monterey Pine	24"	3			fair	Remove - Project	species not verified; thin crown, dead branches, pruned up. previous tag 802
140	Zelkova serrata	Japanese zelkova	12"	3			good	Protect	CL, C
141	Pinus radiata	Monterey Pine	5"	3			fair	Protect	species not verified; DB, dead branches, pruned up
142	Quercus agrifolia	Coast live oak	15"	3	N	Y	fair to good	Protect	bad pruning
143	Quercus agrifolia	Coast live oak	18"	3	N	Y	fair to good	Remove - Project	ID, HC, IB, DB, LV, woodpecker markings
144	Quercus agrifolia	Coast live oak	14"	3	N	Y	fair to good	Remove - Project	ID, HC, IB, DB, LV, woodpecker markings
145	Quercus agrifolia	Coast live oak	7,12"	2	N	Y	fair	Potential Trench Impact	C, CD, IB, ID, split bark,
146	Quercus agrifolia	Coast live oak	6"	2	N		fair	Potential Trench Impact	C, ID, DB, LV, woodpecker markings
147	Quercus agrifolia	Coast live oak	14"	2	N	Y	fair	Potential Trench Impact	ID, C, woodpecker markings

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									MD=mech. damage IB=included bark BT=buried trunk flare ID=insect damage AG=adventitious growth
148	Quercus agrifolia	Coast live oak	12"	2	N	Y	fair	Potential Trench Impact	EG, LV, split bark
149	Sequoia semperivens	Coast redwood	30"	3	N	Y	fair	Potential Trench Impact	C, AG, HC, MD, ID, CH
150	Sequoia semperivens	Coast redwood	30"	4	N	Y	good	Protect	NV
151	Cupressus macrocarpa	Monterey cypress	32"	1	N		poor	Potential Trench Impact	IB, ID, weeping sap, included branches, mostly brown foliage
152	Quercus agrifolia	Coast live oak	20"	2	N	Y	fair	Potential Trench Impact	LV, DB, ID, goat/deer browsed, exposed roots, bird nest, patchy crown
153	Cupressus macrocarpa	Monterey cypress	14"	1	N		poor	Potential Trench Impact	IB, HC, ID, weeping sap, in decline
154	Cupressus macrocarpa	Monterey cypress	22"	1	N		poor	Potential Trench Impact	LV, DB, CH, exposed roots
155	Quercus agrifolia	Coast live oak	12"	1	N	Y	poor	Existing	BT, DB, CD, IB, LV, ID
156	Cupressus macrocarpa	Monterey cypress	10,16"	1	N		poor	Existing	CD, BT, ID, AG, LV, weeping sap
157	Quercus agrifolia	Coast live oak	10"	1	N	Y	poor	Existing	C, DB, ID, MD
158	Cupressus macrocarpa	Monterey cypress	7,18"	2	N		poor	Existing	ID, CD, IB, DB
159	Cupressus macrocarpa	Monterey cypress	15,11,8"	2	N		poor	Existing	ID, CD, IB, DB
160	Cupressus macrocarpa	Monterey cypress	10"	2	N		poor	Existing	ID, CD, IB, DB, C
161	Quercus agrifolia	Coast live oak	8"	1	N	Y	poor	Existing	LV, IB, DB, MD
162	Cupressus macrocarpa	Monterey cypress	4"	0	N		dead	Existing	dead
163	Quercus agrifolia	Coast live oak	10"	1	N	Y	poor	Existing	DB, LV
164	Cupressus macrocarpa	Monterey cypress	20"	2	N		poor	Existing	LV, IB
165	Quercus agrifolia	Coast live oak	18"	2	N	Y	poor	Existing	LV, C, MD, DB, CD
166	Olea europaea	Common Olive	8"	1			v poor	Existing	ID, C, EG, MD, LV, IB, almost dead
167	Quercus agrifolia	Coast live oak	14"	2	N	Y	poor	Existing	LV, CD, C, MD, IB, ID
168	Quercus agrifolia	Coast live oak	5"	1	N		poor	Existing	ID, MD, EG, IB, sooty mold
169	Quercus agrifolia	Coast live oak	24"	2	N	Y	poor	Existing	CD, DB, IB, LV, ID, deer/goat browsed
170	Quercus agrifolia	Coast live oak	20"	2	N	Y	poor	Existing	CD, IB, LV, deer/goat browsed
171	Pinus halepensis	Aleppo pine	30,40"	3			fair	Protect	BT, DB, LV, HC, weeping sap
172	Pinus halepensis	Aleppo pine	22"	2			poor	Existing	DB, uneven crown, weeping sap, exposed roots
173	Pinus halepensis	Aleppo pine	24"	1			poor	Existing	CD, DB, HC, ID
174	Pinus halepensis	Aleppo pine	32"	2			poor	Existing	HC, DB, IB, MD, included branches, weeping sap, exposed roots
175	Quercus agrifolia	Coast live oak	6"	1	N		v poor	Existing	HC, LV, DB, tree headed, only weakly attached response sprouts remain
176	Olea europaea	Common Olive	2"	1			v poor	Existing	LV, DB, CD, stunted foliage ID difficult, almost dead
177	Pyrus calleryana	Callery pear	11"	1			poor	Remove - Project	LV, DB, CH, CD, IB, old pruning wound, fireblight, off color foliage, lost leade
178	Pyrus calleryana	Callery pear	7.5"	2			poor	Remove - Project	DB, LV, fireblight, lost leader, poor vert branch spacing, poor aspect ratio, old pruning wound
179	Pyrus calleryana	Callery pear	9.5"	2			poor	Remove - Project	DB, LV, fireblight, dead wood, sparse off-color foliage, lean, crossing branches
180	Pyrus calleryana	Callery pear	4.5"	1			poor	Remove - Project	DB, LV, stunted, dead wood, fireblight
181	Pyrus calleryana	Callery pear	7"	2			poor	Remove - Project	LV, lost leader, fireblight, dead wood, poor vertical branch spacing, off-color foliage, bulging branches
182	Pyrus calleryana	Callery pear	6"	3			poor	Remove - Project	LV,DB, slight lean, dead wood, fireblight
183	Pyrus calleryana	Callery pear	5"	2			poor	Remove - Project	LV, DB, CD, fire blight, lost leader, off color foliage
184	Pyrus calleryana	Callery pear	11.5"	1			poor	Remove - Project	LV, CD, IB, DB, dead top, sparse foliage, flush cut, fireblight
185	Pyrus calleryana	Callery pear	13"	2			poor	Remove - Project	LV, Dead top, flush cuts, dead wood, fireblight, poor aspect ratio, off-color foliage, heavy lateral branches
186	Pyrus calleryana	Callery pear	11"	4			fair	Remove - Project	CD, DB, dead wood, mistletoe toe, fire blight, some tip die back, healthier than the rest
187	Pyrus calleryana	Callery pear	13"	1			poor	Remove - Project	DB, CD, Significant die back, fireblight, dead wood, sap sucker damage, lost leader, unclosed pruning wounds
188	Arbutus menziesii	Madrone	6.5"	4		Y	good	Protect	CD, nice tree, leaf spot fungal pathogen, co dominant aspect ratio, leaf miners, ants
189	Quercus agrifolia	Coast live oak	7.5"	4		Y	good	Protect	CD, ID, Structural pruning to address co dominance, white fly, fungal leaf pathogen, light sycamore bore
190	Quercus agrifolia	Coast live oak	8"	4		Y	good	Protect	CD, IB, ID, frass, sycamore bore, deadwood, fungal leaf pathoger
191	Quercus agrifolia	Coast live oak	7"	4		Y	fair	Protect	CD, IB w ridge, oozing at included bark, fungal leaf pathogen, sycamore bore
192	Pyrus calleryana	Callery pear	12.5"	2			fair	Potential Trench Impact	CD, IB, DB, lean, dead top, dead wood

ATTACHMENT A: TREE INVENTORY AND ASSESSMENT

EBMUD - SOBRANTE WATER TREATMENT PLANT IMPROVEMENTS

TREE NO.	BOTANIC NAME	COMMON NAME	DBH	HEALTH / CONDITION (0=dead, 5=excell-ent)	N=NATIVE I=INVASIVE	PROTECTED TREE STATUS	SUITABILITY FOR PRESERVATION	TREE DISPOSITION STATUS (SEE ATTACHEMENT C: TREE DISPOSITION PLAN)	COMMENTS

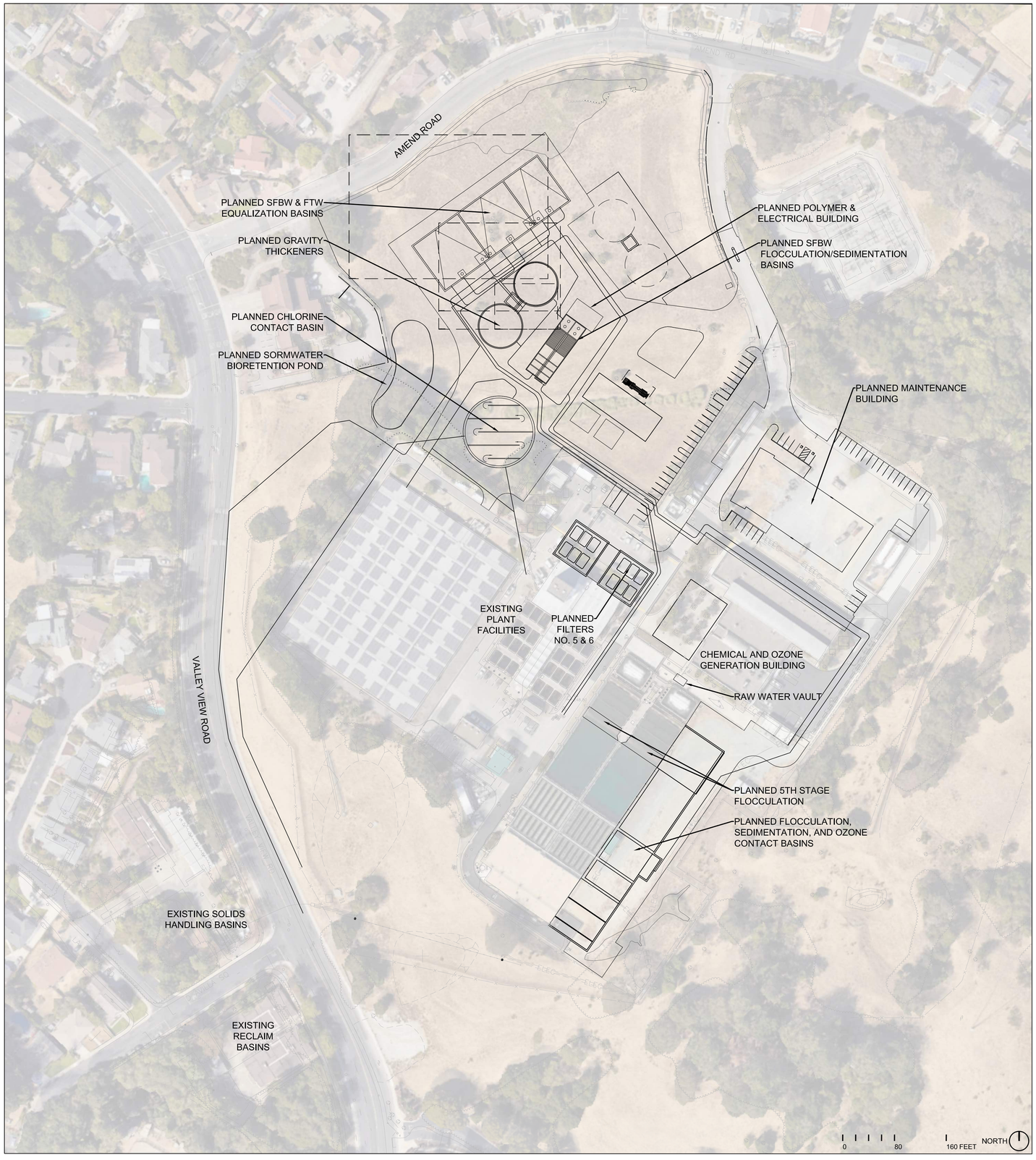
LV=low vigor
NV=normal vigor
CH=chlorosis
T=topped
LT=liontailed

CD=codominant leader
C=canker
DB=dieback
EG=epicormic growth
HC=heading cut

MD=mech. damage
IB=included bark
BT=buried trunk flare
ID=insect damage
AG=adventitious growth

Notes:

1. Tree numbers preceeded with "E" were tagged in a previous survey.
2. DBH was provided in survey CAD files provided by EBMUD.
3. Protected Tree Status per Contra Costa County Code 816-6.6004 and City of Richmond Bylaw 8057



Sobrante Water Treatment Plant Reliability Improvements Project

ARBORIST CONDITION REPORT
ATTACHMENT B: SITE MAP

East Bay Municipal Utility District
5500 Amend Road
El Sobrante, CA 94803

TREE LEGEND

SYMBOL	DESCRIPTION
TREE #	EXISTING TREE
TREE #	EXISTING TREE TO BE PROTECTED
TREE #	EXISTING TREE TO BE REMOVED DUE TO PROJECT CONSTRUCTION
TREE #	EXISTING TREE POTENTIALLY IMPACTED DUE TO TRENCHING FOR WATER PIPELINES

AMEND ROAD

VALLEY VIEW ROAD

VEGETATION SHOWN IN THIS AREA IS NOT CATEGORIZED AS TREES

POTENTIAL TRENCH EXTENTS FOR WATER PIPELINE

SEE SHEET 2

SEE SHEET 2

0 40 80 FEET NORTH

Sobrante Water Treatment Plant Reliability Improvements Project

ARBORIST CONDITION REPORT
ATTACHMENT C: TREE DISPOSITION PLAN
SHEET 1

East Bay Municipal Utility District
5500 Amend Road
El Sobrante, CA 94803

Sobrante Water Treatment Plant Reliability Improvements Project

ARBORIST CONDITION REPORT
ATTACHMENT C: TREE DISPOSITION PLAN
SHEET 2

East Bay Municipal Utility District
5500 Amend Road
El Sobrante, CA 94803

Appendix C – EBMUD Practices and Procedures Monitoring and Reporting Plan, Mitigation Monitoring and Reporting Program

APPENDIX C

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Table 1 EBMUD Practices and Procedures Monitoring and Reporting Plan

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
Aesthetics						
Impact AES-2 Substantially degrade damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	EBMUD Standard Construction Specification 01 32 36, Video Monitoring and Documentation Section 1.2, Site Survey Audio-Video Recording Requirements • The Contractor shall employ a qualified videographer, experienced in taking properly documented and annotated video to perform the Pre-Construction Site Survey, which shall be completed within 20 days after the issuance of the Notice to Proceed. The Pre-Construction Site Survey shall be completed and accepted prior to EBMUD issuance of the Notice to Commence Field Work. • Prior to commencement of the Pre-Construction Site Survey recording, the Contractor shall notify EBMUD in writing within 48 hours of the recording. EBMUD will provide a designated representative to accompany and observe audio-video recording operations. Audio-video recording completed without an EBMUD Representative present will be unacceptable unless specifically authorized in writing and in advance by EBMUD. • Provide a copy of the Pre-Construction Site Survey to EBMUD for review and comment. The Survey shall include all audio-video recordings, photography, annotations and all documentation. If EBMUD determines that critical areas are missing from the survey, the Contractor shall provide additional recording and documentation of the requested area and locations. • Post-Construction Site Survey: The Contractor shall perform a Post-Construction Site Survey of the same areas recorded in the Pre-Construction Site Survey following the same path/route of the Pre-Construction Site survey. EBMUD will review post-construction survey findings with the Contractor and develop a complete listing of project site restoration requirements to be accomplished by the Contractor. Prior to commencement of Post-Construction Site Survey recording, the Contractor shall notify EBMUD in writing within 48-hours of the recording. EBMUD will provide a designated representative to accompany and observe audio-video recording operations. Audio-video recording completed without an EBMUD Representative present will be unacceptable unless specifically authorized in writing and in advance by EBMUD. • The Contractor shall be responsible for repairing any damage or defects not documented as existing prior to construction.	• Phase 2	• Central North Aqueduct Pipeline	• Contractor is responsible for pre- and post-construction surveys and repairing damage.	• EBMUD Designated Videographer is responsible for video recording. • EBMUD is responsible for verifying repairs.	• Prior to construction • Post-construction
Impact AES-3 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) or in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.	EBMUD Standard Construction Specification 01 32 36, Video Monitoring and Documentation, *Section 1.1, Summary* • Audio-video documentation utilizing digital recording of surface features, supplemented by photography, which may be taken along the entire length of the project and may include work and storage areas, adjacent properties, and/or intersecting roadways. – Prior to audio-video recording of the project, all areas to be inventoried shall be investigated visually with notations made of items not readily visible by audio-video recording or supplemental photographic methods.	• Phase 1 • Phase 2	• Amend Road adjacent to site and infrastructure within temporary impact areas at SOWTP	• Contractor is responsible for documentation and restoring conditions to meet specification. • Contractor is responsible for repairs.	• EBMUD Designated Videographer (to video). • EBMUD is responsible for verifying implementation and repairs.	• Prior to construction • Post-construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	Section 1.2, Site Survey Audio-Video Recording Requirements (Details listed under AES-1). *Section 3.1(C), Views and Narratives Required* • Such coverage may include, but not be limited to, existing driveways, sidewalks, pavement, curbs, gutters, ditches, berms, roadways, landscaping, trees, culverts, headwalls, and retaining walls, fencing, gates, handrails, signage, manholes, vaults, utility boxes, lighting, traffic signals and controls, loop detectors, landscaping, irrigation controllers, street furniture, buildings, equipment, appurtenances, structures, and other existing features etc. located within the work zone.					
Impact AES-3 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) or in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.1(B), Site Activities* • Following completion of Work, remove ditches, dikes, or other ground alterations made by the Contractor. The ground surfaces shall be returned to their former condition, or as near as practicable, in EBMUD's opinion. • Prevent visible dust emissions from leaving the work areas.	• Phase 1 • Phase 2	• SOWTP site temporary disturbance areas (not subject to grading)	• Contractor is responsible for restoring temporary work areas and preventing emissions.	• Contractor is responsible for monitoring dust emissions. • EBMUD responsible for verifying implementation.	• Construction • Post-Construction
Impact AES-3 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) or in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.	**EBMUD Standard Construction Specification 01 35 45, Biological, Cultural, and Paleontological Resource Requirements** *Section 3.2(B), Tree Protection* • Locations of trees to be removed and protected are shown in the construction drawings. Pruning and trimming shall be completed by the Contractor and approved by EBMUD. Pruning shall adhere to the Tree Pruning Guidelines of the International Society of Arboriculture. • Erect exclusion fencing five feet outside of the drip lines of trees to be protected. Erect and maintain a temporary minimum 3-foot high orange plastic mesh exclusion fence at the locations as shown in the drawings. The fence posts shall be six-foot minimum length steel shapes, installed at 10-feet minimum on center, and be driven into the ground. The Contractor shall be prohibited from entering or disturbing the protected area within the fence except as directed by EBMUD. Exclusion fencing shall remain in place until construction is completed and EBMUD approves its removal. • No grading, construction, demolition, trenching for irrigation, planting or other work, except as specified herein, shall occur within the tree protection zone established by the exclusion fencing installed shown in the drawings. In addition, no excess soil, chemicals, debris, equipment or other materials shall be dumped or stored within the tree protection zone. • In areas that are within the tree drip line and outside the tree protection zone that are to be traveled over by vehicles and equipment, the areas shall be covered with a protective mat composed of a 12-inch thickness of wood chips or gravel and covered by a minimum ¾-inch-thick steel traffic plate. The protective mat shall remain in place until construction is completed and EBMUD approves its removal. • Tree roots exposed during trench excavation shall be pruned cleanly at the edge of the excavation and treated to the satisfaction of the Certified Arborist. • Any tree injured during construction shall be evaluated as soon as possible by the Certified Arborist, and replaced as deemed necessary by the Certified Arborist.	• Phase 1 • Phase 2	• SOWTP site	• Contractor is responsible for erecting protection fencing around trees to be protected and protecting trees as required in the specification. • EBMUD is responsible for hiring a certified arborist to review tree roots exposed during construction and any injured tree. • Contractor is responsible for replacing injured trees if necessary.	• EBMUD is responsible for verifying implementation.	• Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
Impact AES-3 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) or in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.	**EBMUD Standard Construction Specification 01 74 05, Cleaning** *Section 3.2(B), Cleaning During Construction* • Dispose of all refuse off EBMUD property as often as necessary so that at no time shall there be any unsightly or unsafe accumulation of rubbish. *Section 3.3(K), Final Cleaning* • Remove from EBMUD property all temporary structures and all material, equipment, and appurtenances not required as a part of, or appurtenant to, the completed work.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for cleaning site of trash and removing temporary structures at completion of work.	• EBMUD is responsible for verifying implementation.	• Construction • Post-Construction • Demolition
Impact AES-4: The potential to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 3.9(A), Lighting Used During Nighttime Work* • 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 shielded, located, and aimed to provide the required level of illumination and uniformity in the work zone without the creation of unnecessary glare.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for using light during nighttime construction only when needed and that lighting meets the standard.	• EBMUD is responsible for verifying implementation.	• During Nighttime Construction (after dusk or before dawn)
Air Quality						
Impact AQ-1: Conflict with or obstruct implementation of the applicable air quality plan. **Impact AQ-3:** Expose sensitive receptors to substantial pollutant concentrations.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(F), Dust Control and Monitoring Plan* • Submit a plan detailing the means and methods for controlling and monitoring dust generated by demolition and other work on the site for EBMUD's acceptance prior to any work at the jobsite. – Identify methods to 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. – Outline practices for preventing dust emissions and procedures to be used during operations and maintenance activities. – Include measures for the control of paint overspray and abrasive blasting emissions, including, but not limited to containment, ventilation systems and monitoring for damage and leaks. – Describe equipment and methods used to monitor compliance with the plan. *Section 3.5, Air Quality Control* • Implement all necessary air pollutant construction measures per the BAAQMD "Basic Construction Mitigation Measures" (BAAQMD CEQA Guidelines May 2017), including, but not limited to the following: – All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. – All haul trucks transporting soil, sand, or other loose material off-site shall be covered. – All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for implementing all requirements in the specification. • EBMUD is responsible for addressing any dust complaints.	• EBMUD is responsible for verifying implementation.	• Construction • Demolition

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	– All vehicle speeds on unpaved roads shall be limited to 15 mph. – All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. – 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 California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. – All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. – The contractor shall post an EBMUD-furnished, publicly visible sign with EBMUD and BAAQMD contact information regarding dust complaints. • Implement all necessary air pollutant construction measures per the BAAQMD "Additional Construction Mitigation Measures" (BAAQMD CEQA Guidelines May 2017) including but not limited to the following: – All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe. – All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. – Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity. – 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. – The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities 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. – All trucks and equipment, including their tires, shall be washed off prior to leaving the site. – Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel. – 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. – Minimizing the idling time of diesel-powered construction equipment to two minutes. – The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit					

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. – Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings). – Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM. – Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy duty diesel engines. • Implement all necessary EBMUD air pollutant construction measures, including but not limited to the following: – Gravel or apply non-toxic soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. Submit specifications for any dust palliatives applied to unpaved roads to EBMUD. – Water and/or cover soil stockpiles daily. – All transitions from soil to a paved road shall have best management practices applied to prevent drag out of soil. – Water used for dust control shall not run off the job site and cause erosion or other issues. – Use of recycled water for dust control is encouraged. – Use line power instead of diesel generators at all construction sites where line power is available. – Temporary sources of air emissions (such as portable pumps, compressors, generators, etc.) shall be electrically powered unless 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. – Minimize the use of diesel generators where possible. – 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, schools, and parks. – Perform regular low-emission tune-ups on all construction equipment, particularly haul trucks and earthwork equipment. – On road and off-road vehicle tire pressures shall be maintained to manufacturer specifications. Tires shall be checked and re-inflated at regular intervals. – Demolition debris shall be recycled for reuse to the extent feasible. See the Construction and Demolition Waste Disposal Plan paragraphs above for requirements for wood treated with preservatives. *Section 3.6, Dust Monitoring During Demolition and Construction* • Provide air monitoring along the perimeter of the job site. A minimum of 4 stations, one on each side of the EBMUD property, shall be established, capable of continuous measurement of total particulate concentration when any dust generating activity is occurring.					

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	• Conduct real-time air monitoring at appropriate locations onsite based on wind direction, type of construction activity, and sensitive receptors to ensure dust control measures are effective. • 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. – All analysis shall be completed by an ELAP certified laboratory for the specific parameters of interest. – The Contractor shall provide to EBMUD, within 72 hours of sampling, all test results. • The dust control system shall comply with the requirements of this section and any applicable laws and regulations. Specific limitations that shall be met include the following: – 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. – 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 BAAQMD regulations.					
Impact AQ-1: Conflict with or obstruct implementation of the applicable air quality plan.	**EBMUD Standard Construction Specification 02 82 13, Asbestos Control Activities** *Section 1.1, Compliance and Intent* • Furnish all labor, materials, facilities, equipment, services, employee training and testing, permits, and agreements necessary to perform the asbestos removal in accordance with these specifications and with the latest regulations from the U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Bay Area Air Quality Management District (BAAQMD), the Cal/EPA Department of Toxic Substance Control, the California Department of Occupational Safety and Health (DOSH), and other federal, state, county, and local agencies. Whenever there is a conflict or overlap of the above references, the most stringent provision is applicable. • During demolition procedures, the Contractor shall protect against contamination of soils, water, adjacent residences and properties, and the airborne release of hazardous materials and dusts. The Contractor will incur the costs associated with the implementation of controls and, if necessary, remediation. The Contractor shall be responsible for all necessary cleanup of contaminated areas/properties to pre-work condition and for all associated costs. It is the Contractor's responsibility to confirm and document the quantities of asbestos material to be removed. • Asbestos materials uncovered during the demolition activities shall be disposed of in an approved manner complying with all applicable federal, state, and local regulations. Appropriate waste manifests shall be furnished to EBMUD as per Sections 01 35 24 – Project Safety Requirements, and 01 35 44 – Environmental Requirements. Materials are conveyed to the Contractor "as is," without any warranty, expressed or implied, including but not limited to, any warranty to marketability or fitness for a particular purpose, or any purpose.	• Phase 1	• SOWTP site demolition area at reclaim facilities	• Contractor is responsible for providing proper remediation of asbestos during demolition, submitting a detailed plan documenting the quantities of asbestos removed, monitoring air quality during asbestos removal, and proper disposal of asbestos containing materials.	• EBMUD is responsible for verifying implementation.	• Demolition

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	Section 1.5, Submittals • Project Safety and Health Plan: The Contractor shall provide a Project Safety and Health Plan prior to project initiation as specified in Section 01 35 24. • Submit a detailed plan of the procedures proposed for use in complying with the regulations included in this specification. The plan shall include the location and layout of decontamination areas, the sequencing of asbestos work, the interface of trades involved in the performance of work, disposal plan including location of approved disposal site, and a detailed description of the methods to be employed to control pollution. Expand upon the use of portable HEPA ventilation system, method of removal to prohibit visible emissions in work area, and packaging of removed asbestos debris. Include asbestos abatement in the Construction and Demolition Waste Disposal Plan, in accordance with Section 01 35 44. • Certificates of Compliance: Submit certification that equipment required to contain airborne asbestos fibers conform to ANSI Z9.2. *Section 1.6, Submittals (Job in Progress)* • Provide to EBMUD, within 72 hours of sampling, test results of the personal air sampling described in Article 3.2. • Provide to EBMUD, results of required air sampling established at property and project boundaries within 72 hours of sampling, and measures the contractor has taken to improve non-conforming outcomes based on the results. *Section 3.1, Initial Area Isolation* • Demarcate the demolition area and specific hazard zones where asbestos removal occurs. Post warning signs and labels as required by Cal-EPA, BAAQMD, Cal OSHA Section 1529, and additional signs and warnings as directed by EBMUD. • Ensure asbestos hazards remain on site for proper abatement and disposal procedures. Ensure worker activity (access and egress) does not cause asbestos hazards to leave the project boundaries. *Section 3.2, Work Activities* • General Procedures: Perform all asbestos related work and comply with the general safety and health provisions in conformance with Cal/OSHA Title 8 CCR Section 1529. For asbestos abatement work, use general work practices, work practices for encapsulation as specified in 34 CFR Part 231 Appendix C, applicable CAL OSHA requirements, and other appropriate work procedures approved by the Environmental Protection Agency (EPA). • Suppress air-borne particulates using a minimum of two misting units operated simultaneously from the following product series given below: – Monsoon Atomizing Misting System, Buffalo Turbine, www.buffaloturbine.com – Or equal as approved by EBMUD • Ensure air borne asbestos limits are not exceeded and are compliance with U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Bay Area Air Quality Management District (BAAQMD), the Cal/EPA Department of Toxic Substance Control, the California Department of Occupational Safety and Health (DOSH), and other federal, state, county, and local agencies requirements for airborne emissions.					

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	• Monitoring: Monitoring of airborne concentrations of asbestos shall be in accordance with Title 8CCR section 1529, and BAAQMD requirements. – Baseline air monitoring shall be conducted prior to demolition work and prior to asbestos related work. Base air measurements shall be established at the property boundary in the east, west, north and south coordinates. – If monitoring shows airborne concentrations greater than regulatory asbestos control limits, stop all work, correct the conditions causing the excessive levels, and notify EBMUD immediately. – Conduct at a minimum one set of post-asbestos removal/demolition air monitoring established at the property boundary and in the same location of baseline monitoring in the east, west, north and south coordinates.					
Impact AQ-1: Conflict with or obstruct implementation of the applicable air quality plan.	**Procedure 600** • Designates a Public Affairs liaison to respond to construction-related issues, including noise. Contact information for the Public Affairs liaison (i.e., phone number, email address) and capital project site address will be provided via conspicuous signage at construction sites, on all advance notifications, and on the District project website. The Public Affairs liaison will coordinate with the construction project manager/engineer and any contractors to resolve any issues. • -Notifies residents at least seven days (and preferably fourteen days) in advance of potentially disruptive construction activities (e.g., noise, traffic, parking); notifications will include the activities' geographical extent and estimated duration. The Public Affairs liaison will coordinate with the project manager/engineer and any contractors to provide advance notification via email, mailed notices, door-hangers, social media, or other means, as appropriate	• Phase 1 • Phase 2	• SOWTP Site • Central North Aqueduct pipeline	• EBMUD will designate a Public Affairs liaison who is responsible for responding to any public complaints during construction. • EBMUD will send notices to residents per the procedure.	• EBMUD is responsible for verifying all notices are properly provided.	• Construction
Biological Resources						
Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS). **Impact BIO-4:** 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.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.1(B), Site Activities* • Protect storm drains and surface waters from impacts of project activity. • Store materials and wastes such as demolition material, soil, sand, asphalt, rubbish, paint, cement, concrete, or washings thereof, oil or petroleum products, or earthen materials in a manner to prevent it from being washed by rainfall or runoff outside the construction limits. • Reuse or dispose of excess material consistent with all applicable legal requirements and disposal facility permits. • Clean up all spills and immediately notify EBMUD in the event of a spill. • Equip stationary equipment such as motors, pumps, and generators with drip pans. • 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 be adequate to ensure the safety of stored materials and of personnel using these areas. • Following completion of Work, remove ditches, dikes, or other ground alterations made by the Contractor. The ground surfaces shall be returned to their former condition, or as near as practicable, in EBMUD's opinion. • Prevent visible dust emissions from leaving the work area.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for implementing the specification.	• EBMUD is responsible for verifying implementation.	• Construction • Post-construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	• Handle, store, apply, and dispose of any chemical or hazardous material used in the performance of the Work in a manner consistent with all applicable federal, state, and local laws and regulations.					
Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. **Impact BIO-4:** 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.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(A), Stormwater Management* • Construction General Permit – Submit the Notice of Intent, Storm Water Pollution Prevention Plan (SWPPP), and all other documents prepared for compliance with the General Construction Storm Water Permit (NPDES No. CAS000002) to EBMUD and upload them in the SWRCB's Storm Water Multi-Application & Report Tracking System (SMARTS). ▪ EBMUD will electronically acknowledge appropriate submittals in SMARTS after review. ▪ Contractor shall pay for all registration and annual fees under this permit/program. – Submit a Storm Water Management 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 any other contaminants known to exist at the jobsite location as described in Document 00 31 24 – Materials Assessment Information	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for preparing a SWPPP and uploading documents to SMARTS as well as preparing a Storm Water Management Plan that meets the requirements in the specification.	• EBMUD is responsible for reviewing and approving the plans.	• Prior to construction.
Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. **Impact BIO-4:** 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.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(B), Water Control and Disposal Plan* • 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.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for preparing a Water Control and Disposal Plan that meets the requirements prior to any activity that necessitates the plan.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to construction. • Construction
Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. **Impact BIO-4:** 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.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(E), Spill Prevention and Response Plan* • Submit plan detailing the means and methods for preventing and controlling the spilling of known hazardous substances used on the jobsite or staging areas. – Include a list of the hazardous substances proposed for use or generated by the Contractor on site, including petroleum products. – Define measures that will be taken to prevent spills, monitor hazardous substances, and provide immediate response to spills. – Include provisions for notification of EBMUD or alternate contact and appropriate agencies including phone numbers; spill-related worker, public health, and safety issues; spill control, and spill cleanup. – Map showing hazardous materials project-related storage locations, names of the hazardous materials, and volumes/quantities.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for preparing the Spill Prevention and Response Plan in compliance with the requirements in the specification prior to construction.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to construction • Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	– Submit a Safety Data Sheet (SDS) for each hazardous substance proposed to be used prior to delivery of the material to the jobsite.					
Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS. **Impact BIO-4:** 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.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements,** *Section 3.2, Storm Water* • Conduct all inspections, sampling, reporting, and other required provisions in the SWPPP. • Upload all necessary documents to SMARTS to comply with the Construction General Permit. • Follow all provisions in local storm water permits and/or rules during construction. • Maintain sufficient best management practices or other controls as outlined in the storm water management plan to prevent impacts to storm water from pollution including soil, dust, stored hazardous materials, and construction activities.	Phase 1 Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for conducting inspections, following all stormwater permit requirements, and maintaining BMPs throughout construction.	• EBMUD is responsible for verifying compliance with the permits.	• Construction
Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	**EBMUD Standard Construction Specification 01 35 45, Biological, Cultural, and Paleontological Requirements** *Section 3.1, Training and Certification* • Before beginning construction, all Contractor personnel involved in ground-disturbing activities are required to attend an environmental training program provided by EBMUD, of up to one day for site supervisors, foremen and project managers and up to 30 minutes for non-supervisory Contractor personnel. Contractor general personnel will receive a worker environmental awareness training. • The Contractor is responsible for ensuring that all workers requiring environmental training are identified to EBMUD. • Prior to accessing or performing construction work, the identified Contractor personnel shall: – Sign a wallet card provided by EBMUD verifying that the Contractor personnel has attended the appropriate level of training relative to their position; have understood the contents of the environmental training, and shall comply with all project environmental requirements. – Display an environmental training hard hat decal (provided by EBMUD after completion of the training) at all times.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for attending training and maintaining all required documentation of training.	• EBMUD is responsible for verifying workers have received training.	• Prior to construction • Construction
Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	**EBMUD Standard Construction Specification 01 35 45, Biological, Cultural, and Paleontological Requirements** *Section 3.2(C), Special-Status Plant Populations* • In addition to the training identified in Article 3.1 above, special-status plant population training will include a description of the sensitive plant species in the Project vicinity, including natural history and habitat, the general protection measures to be implemented to protect the species, and a delineation of the limits of the work areas. Identified Contractor personnel will be required to sign documents stating that they understand that take of special-status plant species and destruction or damage of their habitat would be a violation of state and federal law. • In the spring prior to construction, the Designated Biologist will conduct preconstruction sensitive plant surveys in all areas where ground disturbance will occur. Any observed sensitive plant species will be mapped and flagged for avoidance where feasible. EBMUD will notify	• Phase 1 • Phase 2	• SOWTP site	• EBMUD is responsible for hiring a qualified botanist to conduct surveys in compliance with the requirements.	• EBMUD is responsible for notifying CDFW and enforcing restrictions on work areas the specification, if needed.	• Prior to construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	CDFW upon discovery of any sensitive plant species during preconstruction surveys. • Sensitive plant species shall be avoided, or impacts shall be minimized by limiting ground disturbance where sensitive plants are present. • To minimize impacts on sensitive vegetation immediately adjacent to designated construction areas, EBMUD will designate areas containing sensitive vegetation as restricted areas.					
Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	**EBMUD Standard Construction Specification 01 35 45, Biological, Cultural, and Paleontological Requirements** *Section 3.2(E), Project-Specific Protected Wildlife Species* • California Red-legged Frog – Seven days prior to construction activities, the Project area will be surveyed for California red-legged frog by the Designated Biologist. Surveys of the Project area will be repeated if a lapse in construction activity of two weeks or greater occurs. – If the California red-legged frog is observed at the construction site at any time during construction, work shall cease immediately until the frog leaves the work area on its own or is relocated outside of the work area by the Designated Biologist. Any sightings and any incidental take will be reported to the USFWS and CDFW immediately by EBMUD.	• Phase 2	• Central North Aqueduct pipeline jack and bore pits	• EBMUD is responsible for hiring a biologist and performing surveys per the specification.	• EBMUD is responsible for verifying implementation.	• Prior to construction
Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	**EBMUD Standard Construction Specification 01 35 45, Biological, Cultural, and Paleontological Requirements** *Section 3.2(E), Project-Specific Protected Wildlife Species* • San Francisco dusky-footed woodrat – A preconstruction survey will be performed by the Designated Biologist within seven days prior to the start of ground-disturbing activities to identify the locations of active San Francisco dusky-footed woodrat nests within the project boundary. Any woodrat nests detected will be mapped and flagged for avoidance by the Designated Biologist. – If active nests are determined to be present, avoidance measures will be implemented first. Because San Francisco dusky-footed woodrats are year-round residents, avoidance mitigation is limited to restricting project activities to avoid direct impacts to San Francisco dusky-footed woodrats and their active nests to the extent feasible. A minimum ten-foot buffer should be maintained between project construction activities and each nest to avoid disturbance. In some situations, a smaller buffer may be allowed if, in the opinion of the Designated Biologist, removing the nest would be a greater impact than that anticipated as a result of project activities. – If an unoccupied woodrat nest is found within the site and it cannot be avoided, the nest should be disassembled by hand by the Designated Biologist. The nest materials should be relocated off site outside of the wildlife exclusion fencing to prevent rebuilding. – If occupied nests are found within the site, and a litter of young is found or suspected, the nest shall be left alone for two to three weeks before a recheck to verify that young are capable of independent survival before proceeding with nest dismantling. Dismantling shall be done by hand, allowing any animals to escape either along existing woodrat trails or toward other available habitat.	• Phase 1 • Phase 2	• SOWTP site	• EBMUD is responsible for hiring a biologist to perform surveys and measures per the specification.	• EBMUD is responsible for verifying implementation.	• Prior to construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	– EBMUD will notify CDFW of any nests, unoccupied or occupied, before they are dismantled.					
Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	**EBMUD Standard Construction Specification 01 35 45, Biological, Cultural, and Paleontological Requirements** *Section 3.2(D), Protection of Birds Protected Under the Migratory Bird Treaty Act and Roosting Bats* • Provide 30 days' written notice to EBMUD prior to ground disturbing activities, pruning, and trimming. – EBMUD will conduct biological reconnaissance in advance of construction and will conduct biologic monitoring during construction as necessary. • Protected Bird or Bat Species: – If protected species or suitable habitat for protected species is found during biological survey, identified Contractor personnel shall complete the training below in addition to the training identified in Article 3.1: ▪ Watch a video at an EBMUD-designated location, conducted by the Designated Biologist. The program will discuss all sensitive habitats and sensitive species that may occur within the project work limits, including the responsibilities of the Contractor's personnel, applicable mitigation measures, and notification requirements. • Birds Protected under the Migratory Bird Treaty Act (MBTA): – 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 ground disturbing activities occur between February 1 and August 31, during the nesting season, EBMUD will conduct a preconstruction survey for nesting birds within 7 days prior to construction to ensure that no nest will 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 shall 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, the Designated Biologist 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 EBMUD who will consult with the Designated Biologist and appropriate regulatory agencies. – 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 the Designated Biologist, would be necessary. • Roosting Bats:	• Phase 1 • Phase 2	• SOWTP site	• Contractor is responsible for providing 30 days notice of ground disturbing activities, attending contractor training, and ceasing construction activities if needed per the specification. • EBMUD is responsible for providing contractor training, conducting pre-construction biological surveys, biological monitoring, and coordination with CDFW as required by the specification.	• EBMUD is responsible for verifying implementation.	• Prior to construction • Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	– If ground disturbing activities occur between March 1 and July 31, during the bat maternity period, EBMUD will conduct a preconstruction survey for roosting bats within two weeks prior to construction to ensure that no roosting bats will be disturbed during construction. – If roosting surveys indicate potential occupation by a special-status bat species, and/or identify a large day roosting population or maternity roost by any bat species within 200 feet of a construction work area, the Designated Biologist will conduct focused day- and/or night-emergence surveys, as appropriate. – If active maternity roosts or day roosts are found within the project site, or in areas subject to disturbance from construction activities, an avoidance buffers shall be constructed. The buffer size will be determined by EBMUD in consultation with CDFW. – If a non-breeding bat roost is found in a structure scheduled for modification or removal, the bats shall be safely evicted, under the direction of the Designated Biologist in consultation with CDFW to ensure that the bats are not injured. – If preconstruction surveys indicate that no roosting is present, or potential roosting 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 roosting bats, or that are located outside the avoidance buffer for active roosting sites may be removed. Roosting initiated during construction is presumed to be unaffected, and no buffer would be necessary.					
Impact BIO-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. **Impact BIO-5**: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance	**EBMUD Standard Construction Specification 01 35 45, Biological, Cultural, and Paleontological Requirements** *Section 3.2(B), Tree Protection* • Locations of trees to be removed and protected are shown in the construction drawings. Pruning and trimming shall be completed by the Contractor and approved by EBMUD. Pruning shall adhere to the Tree Pruning Guidelines of the International Society of Arboriculture. • Erect exclusion fencing five feet outside of the drip lines of trees to be protected prior to ground disturbing activities. Erect and maintain a temporary minimum 3-foot high orange plastic mesh exclusion fence at the locations as shown in the drawings prior to ground disturbing activities. The fence posts shall be six-foot minimum length steel shapes, installed at 10-feet minimum on center, and be driven into the ground. The Contractor shall be prohibited from entering or disturbing the protected area within the fence except as directed by EBMUD. Exclusion fencing shall remain in place until construction is completed and EBMUD approves its removal. • No grading, construction, demolition, trenching for irrigation, planting or other work, except as specified herein, shall occur within the tree protection zone established by the exclusion fencing installed shown in the drawings. In addition, no excess soil, chemicals, debris, equipment or other materials shall be dumped or stored within the tree protection zone. • In areas that are within the tree dripline and outside the tree protection zone that are to be traveled over by vehicles and equipment, the areas shall be covered with a protective mat composed of a 12-inch thickness of wood chips or gravel and covered by a minimum ¾-inch thick steel traffic plate. The protective mat shall remain in place until construction is completed and EBMUD approves its removal.	• Phase 1 • Phase 2	• SOWTP site	• Contractor is responsible for erecting protection fencing around trees to be protected and protecting trees as required per the specification. • EBMUD is responsible for hiring a certified arborist to review tree roots exposed during construction and any injured tree. • Contractor is responsible for replacing injured trees if necessary.	• EBMUD is responsible for verifying implementation.	• Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	• Tree roots exposed during trench excavation shall be pruned cleanly at the edge of the excavation and treated to the satisfaction of the Certified Arborist. • Any tree injured during construction shall be evaluated as soon as possible by a certified arborist provided by EBMUD, and replaced as deemed necessary by the Certified Arborist.					
	Cultural Resources					
Impact CUL-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. **Impact CUL-3:** Disturb any human remains, including those interred outside of formal cemeteries.	**EBMUD Standard Construction Specification 01 35 45, Biological, Cultural, and Paleontological Requirements** *Section 3.1, Training and Certification* • Before beginning construction, all Contractor personnel involved in ground-disturbing activities are required to attend an environmental training program provided by EBMUD, of up to one day for site supervisors, foremen and project managers and up to 30 minutes for non-supervisory Contractor personnel. Contractor general personnel will receive a worker environmental awareness training. • The Contractor is responsible for ensuring that all workers requiring environmental training are identified to EBMUD. • Prior to accessing or performing construction work, the identified Contractor personnel shall: – Sign a wallet card provided by EBMUD verifying that the Contractor personnel has attended the appropriate level of training relative to their position; have understood the contents of the environmental training, and shall comply with all project environmental requirements. – Display an environmental training hard hat decal (provided by EBMUD after completion of the training) at all times.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for attending training and maintaining all required documentation of training.	• EBMUD is responsible for verifying workers have received training.	• Prior to construction • Construction
Impact CUL-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. **Impact CUL-3:** Disturb any human remains, including those interred outside of formal cemeteries.	**EBMUD Standard Construction Specification 01 35 45, Biological, Cultural, and Paleontological Resource Requirements** *Section 3.3, Protection of Cultural and Paleontological Resources* • Confidentiality of Information on Cultural and Paleontological Resources – 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 EBMUD 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. – Pursuant to California Government Code Section 6254.10, cultural resource information is protected from public disclosure. The Contractor agrees that the 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 EBMUD. • 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.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• EBMUD designated archaeologist is responsible for providing training to contractor. • Contractor is responsible for attending training. • Contract is responsible for notifying EBMUD of any potential discovery of cultural resources and halt work per the specification. • EBMUD is responsible for retaining a qualified archaeologist to inspect any finds as needed. • EBMUD is responsible for contacting the County coroner if any human remains are found.	• EBMUD is responsible for verifying implementation.	• Prior to construction • Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	• In addition to the training identified in Article 3.1.A above, identified Contractor personnel shall attend a cultural and paleontological resources training course provided by EBMUD of up to two hours. The training program will be completed in person or by watching a video, at an EBMUD designated location, conducted or prepared by a Qualified Archaeologist and/or Paleontologist. The program will discuss cultural and paleontological resources awareness within the project work limits, including the responsibilities of Contractor personnel, applicable mitigation measures, confidentiality, and notification requirements. Prior to accessing the construction site, or performing site work, identified Contractor personnel shall: – Sign an attendance sheet provided by EBMUD verifying that all Contractor construction personnel involved in ground disturbing activities 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 Resources" document, and shall comply with all project environmental requirements. • In the event that potential cultural or paleontological resources are discovered at the site of construction, the following procedures shall be instituted: – 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. ▪ The Contractor shall immediately allow EBMUD to evaluate the find. The Contractor is responsible for stopping work and notifying EBMUD and shall not recommence work until authorized to do so by EBMUD. ▪ EBMUD 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 EBMUD, 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 EBMUD, the archaeologist (and Native American representative) will determine when construction can resume. – Discovery of human remains requires that all construction activities immediately cease at, and within 100 feet of the location of discovery. ▪ The Contractor shall immediately notify EBMUD who will engage a qualified archaeologist provided by EBMUD to evaluate the find. The Contractor is responsible for stopping work and notifying EBMUD and shall not recommence work until authorized to do so by EBMUD. ▪ EBMUD 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 EBMUD for the appropriate means of					

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	treating the human remains and any associated funerary objects. Otherwise, the County Coroner shall be allowed to complete their investigation and the Contractor shall not recommence work until authorized to do so by both the Coroner and EBMUD. • If EBMUD determines that the cultural or paleontological resource discovery requires further evaluation, at the direction of EBMUD, the Contractor shall suspend all construction activities at the location of the find and within a larger radius, as required.					
	Energy					
Impact ENG-1: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation	**EBMUD Standard Construction Specification 01 35 44 (Environmental Requirements)** *Section 3.5, Air Quality Control* • Implement all necessary air pollutant construction measures per the Bay Area Air Quality Management District "Basic Construction Mitigation Measures" (BAAQMD CEQA Guidelines May 2017), including, but not limited to the following: – 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 California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • Implement all necessary air pollutant construction measures per the Bay Area Air Quality Management District "Additional Construction Mitigation Measures" (BAAQMD CEQA Guidelines May 2017) including but not limited to the following: – Minimizing the idling time of diesel-powered construction equipment to two minutes. – Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy duty diesel engines. • Implement all necessary EBMUD air pollutant construction measures, including but not limited to the following: – Use line power instead of diesel generators at all construction sites where line power is available. – Temporary sources of air emissions (such as portable pumps, compressors, generators, etc.) shall be electrically powered unless the use of such equipment is not practical, feasible, or available. – Minimize the use of diesel generators where possible. – Perform regular low-emission tune-ups on all construction equipment, particularly haul trucks and earthwork equipment. – On road and off-road vehicle tire pressures shall be maintained to manufacturer specifications. Tires shall be checked and re-inflated at regular intervals. – Demolition debris shall be recycled for reuse to the extent feasible. See the Construction and Demolition Waste Disposal Plan paragraphs above for requirements for wood treated with preservatives.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for implementing all requirements in the specification.	• EBMUD is responsible for verifying implementation.	• Construction
	Geology and Soils					

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
Impact GEO-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground-shaking; seismic-related ground failure (liquefaction, lateral spreading); or landslides.	**EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements** *Section 1.1(F), Site Activities* • Complete a Safe Work Permit prior to starting work at a Water Treatment Plant.	• Phase 1 • Phase 2	• SOWTP site	• Contractor is responsible for completing a Safe Work Permit.	• EBMUD is responsible for verifying implementation.	• Prior to construction
Impact GEO-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground-shaking; seismic-related ground failure (liquefaction, lateral spreading); or landslides. **Impact GEO-3:** Be located on a geologic unit or soil that is unstable, or that would become unstable because of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	**EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements** *Section 1.3(M), Excavation Safety Plan* • Submit an Excavation Safety Plan in accordance with Title 8 CCR §1541. • Contractor shall obtain an excavation permit per Title 8, CCR §341(a)(1) when required. • California Government Code §4216 describes the requirements and procedures for excavation notifications and utility excavation	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for preparing a plan for worker protection around trenches 5 feet or greater.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to construction • Construction.
Impact GEO-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground-shaking; seismic-related ground failure (liquefaction, lateral spreading); or landslides. **Impact GEO-3:** Be located on a geologic unit or soil that is unstable, or that would become unstable because of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. **Impact GEO-4:** Be located on expansive soil creating substantial direct or indirect risks to life or property.	**Engineering Standard Practice 512.1, Water Main Design Criteria** *Purpose:* Establishes criteria for design of water pipelines and establishes minimum requirements for pipeline construction materials.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• EBMUD is responsible for implementing the design criteria specified in Engineering Standard Practice 512.1.	• EBMUD is responsible for verifying implementation.	• Prior to construction
Impact GEO-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground-shaking; seismic-related ground failure (liquefaction, lateral spreading); or landslides. **Impact GEO-3:** Be located on a geologic unit or soil that is unstable, or that would become unstable because of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	**Engineering Standard Practice 550.1, Seismic Design Requirements** *Purpose:* Establishes minimum criteria for seismic design of all EBMUD facilities, including offices, operating centers, water and wastewater treatment plants, water and other liquids storage structures, pumping plants, retaining walls, underground vaults, pipelines, and other structures.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• EBMUD is responsible for implementing the design criteria specified in Engineering Standard Practice 550.1.	• EBMUD is responsible for verifying implementation.	• Prior to construction
Impact GEO-2: Result in substantial soil erosion or the loss of topsoil.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.1(B), Site Activities* • 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	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for implementing the specification.	• EBMUD is responsible for verifying implementation.	• During construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	returned to their former condition, or as near as practicable, in EBMUD's opinion.					
Impact GEO-2: Result in substantial soil erosion or the loss of topsoil.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(A), Storm Water Management* • Construction General Permit – Submit the Notice of Intent, Storm Water Pollution Prevention Plan (SWPPP), and all other documents prepared for compliance with the General Construction Storm Water Permit (NPDES No. CAS000002) to EBMUD and upload them in the SWRCB's Storm Water Multi-Application & Report Tracking System (SMARTS). ▪ EBMUD will electronically acknowledge appropriate submittals in SMARTS after review. ▪ Contractor shall pay for all registration and annual fees under this permit/program. • Storm Water Management Plan – Submit a Storm Water Management 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 any other contaminants known to exist at the jobsite location as described in Document 00 31 24 – Materials Assessment Information. • Local Storm Water Permits – Obtain any local storm water permits (e.g., city, county, etc.), submit copies, and comply with their requirements. – For jobs in unincorporated Alameda County that are greater than one acre, Contractor shall obtain and comply with Alameda County Public Works Agency's Stormwater Permit to enable the inspection of C.6 construction stormwater BMPs.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for preparing a SWPPP and uploading documents to SMARTS as well as preparing a Storm Water Management Plan that meets the requirements in the specification. • Contractor is responsible for submitting a Stormwater Management Plan per the specification. • Contractor responsible for obtaining local permits and submitting copies to EBMUD.	• EBMUD is responsible for reviewing and approving the plans.	• Prior to construction.
Impact GEO-5: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	**EBMUD Standard Construction Specification 01 35 45, Biological, Cultural, and Paleontological Requirements** *Section 3.1, Training and Certification* • Before beginning construction, all Contractor personnel involved in ground-disturbing activities are required to attend an environmental training program provided by EBMUD, of up to one day for site supervisors, foremen and project managers and up to 30 minutes for non-supervisory Contractor personnel. Contractor general personnel will receive a worker environmental awareness training. • The Contractor is responsible for ensuring that all workers requiring environmental training are identified to EBMUD. • Prior to accessing or performing construction work, the identified Contractor personnel shall: – Sign a wallet card provided by EBMUD verifying that the Contractor personnel has attended the appropriate level of training relative to their position; have understood the contents of the environmental training, and shall comply with all project environmental requirements.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for attending training and maintaining all required documentation of training.	• EBMUD is responsible for verifying workers have received training.	• Prior to construction • Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	– Display an environmental training hard hat decal (provided by EBMUD after completion of the training) at all times.					
Impact GEO-5: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	**EBMUD Standard Construction Specification 01 35 45, Biological, Cultural, and Paleontological Requirements** *Section 3.3, Protection of Cultural and Paleontological Resources* • In addition to the training identified in Article 3.1.A above, identified Contractor personnel shall attend a cultural and paleontological resources training course provided by EBMUD of up to two hours. The training program will be completed in person or by watching a video, at an EBMUD designated location, conducted or prepared by a Qualified Archaeologist and/or Paleontologist. The program will discuss cultural and paleontological resources awareness within the project work limits, including the responsibilities of Contractor personnel, applicable mitigation measures, confidentiality, and notification requirements. Prior to accessing the construction site, or performing site work, identified Contractor personnel shall: – Sign an attendance sheet provided by EBMUD verifying that all Contractor construction personnel involved in ground disturbing activities 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 Resources" document, and shall comply with all project environmental requirements. • In the event that potential cultural or paleontological resources are discovered at the site of construction, the following procedures shall be instituted: – Discovery of paleontological resources requires that all construction activities immediately cease at, and within 100 feet of the location of discovery. ▪ The Contractor shall immediately notify EBMUD who will engage a qualified paleontologist provided by EBMUD to evaluate the find. The Contractor is responsible for stopping work and notifying EBMUD and shall not recommence work until authorized to do so by EBMUD. ▪ EBMUD 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 EBMUD, and implemented to the satisfaction of the paleontologist. EBMUD, in consultation with the Qualified Paleontologist, will determine when construction can resume. • If EBMUD determines that the cultural and paleontological resource discovery requires further evaluation, at the direction of EBMUD, the Contractor shall suspend all construction activities at the location of the find and within a larger radius, as required.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• EBMUD designated archaeologist or paleontologist is responsible for providing contractor training. • Contractor is responsible for attending training. • Contractor is responsible for notifying EBMUD of any potential discovery of paleontological resources and halt work per the measure. • EBMUD is responsible for retaining a qualified paleontologist to inspect any finds as needed.	• EBMUD is responsible for verifying contractors have received training and for retaining a qualified paleontologist.	• Prior to construction • Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	Greenhouse Gas Emissions					
Impact GHG-1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 3.5, Air Quality Control* • Implement all necessary air pollutant construction measures per the Bay Area Air Quality Management District "Basic Construction Mitigation Measures" (BAAQMD CEQA Guidelines May 2017), including, but not limited to the following: – 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 California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. – All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • Implement all necessary air pollutant construction measures per the Bay Area Air Quality Management District "Additional Construction Mitigation Measures" (BAAQMD CEQA Guidelines May 2017) including but not limited to the following: – Minimizing the idling time of diesel-powered construction equipment to two minutes. – The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. – Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM. – Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy duty diesel engines. • Implement all necessary EBMUD air pollutant construction measures, including but not limited to the following: – Use line power instead of diesel generators at all construction sites where line power is 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. – Minimize the use of diesel generators where possible. – Perform regular low-emission tune-ups on all construction equipment, particularly haul trucks and earthwork equipment.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for implementing the specification.	• EBMUD is responsible for verifying implementation.	• Construction • Demolition

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	– On road and off-road vehicle tire pressures shall be maintained to manufacturer specifications. Tires shall be checked and re-inflated at regular intervals. – Demolition debris shall be recycled for reuse to the extent feasible. See the Construction and Demolition Waste Disposal Plan paragraphs above for requirements for wood treated with preservatives.					
Hazards and Hazardous Materials						
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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. **Impact HAZ-3:** The project has the potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	**EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements and Site Activities** *Section 1.3(B), Project Health and Safety Plan* • Submit a Project Health and Safety Plan for the work to be performed prior to start of the Notice to Commence Field Work and/or prior to any Limited Notice to Commence Field Work. • The Project Health and Safety Plan shall implement applicable Title 8, California Code of Regulations for the work performed. *Section 1.4, Training and Qualifications Requirements* • Ensure that all personnel who, as the result of work on this contract, will likely be exposed to hazardous conditions or hazardous substances at the site have received the appropriate training for the hazards they may encounter. Establish minimum training requirements and do not allow untrained workers to enter or perform work at the site. • Submit certification of current training and qualification for each worker engaged in work with hazardous conditions or hazardous substances.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for preparing the Project Health and Safety Plan and verifying personnel are property training and submitting certification of training and qualifications per the specification.	• EBMUD is responsible for reviewing and approving the plan. • EBMUD is responsible for reviewing certifications.	• Prior to construction • Construction
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.1(A) Work includes:* • Comply with applicable Federal, State and Local environmental regulations in the execution of the Work. *Section 1.1(B) Site activities* • Store materials and wastes such as demolition material, soil, sand, asphalt, rubbish, paint, cement, concrete or washings thereof, oil or petroleum products, or earthen materials in a manner to prevent it from being washed by rainfall or runoff outside the construction limits. • Reuse or dispose of excess material consistent with all applicable legal requirements and disposal facility permits. • Clean up all spills and immediately notify EBMUD in the event of a spill. • Equip stationary equipment such as motors, pumps, and generators with drip pans. • 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. • Handle, store, apply, and dispose of any chemical or hazardous material used in the performance of the Work in a manner consistent with all applicable federal, state, and local laws and regulations. *Section 1.4(A), Storm Water Management* • Construction General Permit	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for implementing the specification and preparing the required plans.	• EBMUD is responsible for reviewing and approving the plans.	• Prior to construction • Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	– Submit the Notice of Intent, Storm Water Pollution Prevention Plan (SWPPP), and all other documents prepared for compliance with the General Construction Storm Water Permit (NPDES No. CAS000002) to EBMUD and upload them in the SWRCB's Storm Water Multi-Application & Report Tracking System (SMARTS). ▪ EBMUD will electronically acknowledge appropriate submittals in SMARTS after review. ▪ Contractor shall pay for all registration and annual fees under this permit/program. • Storm Water Management Plan – Submit a Storm Water Management 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 any other contaminants known to exist at the jobsite location as described in Document 00 31 24 – Materials Assessment Information. • Local Storm Water Permits – Obtain any local storm water permits (e.g., city, county, etc.), submit copies, and comply with their requirements. – For jobs in unincorporated Alameda County that are greater than one acre, Contractor shall obtain and comply with Alameda County Public Works Agency's Stormwater Permit to enable the inspection of C.6 construction stormwater BMPs.					
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(B), Water Control and Disposal Plan* • Submit a detailed Water Control and Disposal Plan that complies with all requirements of the Specification and includes provisions for the types of discharges and permits in a through c below, if applicable to the project. – Drinking Water System Discharge ▪ Plan shall comply with Drinking Water Systems Discharges Statewide Permit, General Order CAG140001. ▪ Submit all records of actual discharges, monitoring, water quality data, and beneficial reuse described above to EBMUD. – Non-Stormwater Discharges ▪ 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.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for preparing a Water Control and Disposal Plan that meets the requirements prior to any activity that necessitates the plan and complying with all specification requirements including submittal or records.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to construction. • Construction
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(C), Waste Management* • Prepare a Waste Management Plan and submit a copy of the plan for EBMUD's acceptance prior to start of work (except for water wastes which shall be addressed in the Water Control and Disposal Plan). The Waste Management Plan shall address all Construction and Demolition	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for preparing a Waste Management Plan per the specification.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to construction.

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
Impact HAZ-3: The project has the potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	Waste, universal wastes, Hazardous Wastes, Excavation Soils, and any other solid debris intended to be removed from the project site(s). – Identify how the Contractor will handle, transport, dispose of, or otherwise divert each type of material 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 removed materials. – 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). List the permitted landfill, or other permitted disposal facilities, which will be accepting the disposed waste materials. All landfills, hazardous waste, and universal waste disposal sites shall be approved for use by EBMUD. – Describe planned sampling and analysis for characterizing wastes or the Sampling and Analysis Plan below in Paragraph 1.4.J.					
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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. **Impact HAZ-3:** The project has the potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(E), Spill Prevention and Response Plan* • Submit a plan detailing the means and methods for preventing and controlling the spilling of known hazardous substances used on the jobsite or staging areas. – Include a list of the hazardous substances proposed for use or generated by the Contractor on site, including petroleum products. – Define measures that will be taken to prevent spills, monitor hazardous substances, and provide immediate response to spills. – Include provisions for notification of EBMUD or alternate contact and appropriate agencies including phone numbers; spill-related worker, public health, and safety issues; spill control, and spill cleanup. – Map showing hazardous materials project-related storage locations, names of the hazardous materials, and volumes/quantities. – Submit a Safety Data Sheet for each hazardous substance proposed to be used before delivery of the material to the worksite.	• Phase 1 • Phase 2	• SOWTP site Central North Aqueduct pipeline	• Contractor is responsible for preparing a Spill Prevention and Response Plan.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to construction
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(I), Waste Disposal Records* • Copies of waste management and disposal records including bills of lading, manifests, weight tickets, and receipts from waste management facilities shall be submitted to EBMUD. This provision applies to Hazardous Wastes, universal wastes, treated wood wastes, solid wastes disposed at landfills, and radioactive wastes. • Hazardous Waste Manifests – Use the "Uniform Hazardous Waste Manifest", EPA form 8700-22. Contractor shall prepare and EBMUD will review all hazardous waste manifests for acceptability prior to use. – Submit the "Generator's Initial Copy" and a legible photocopy of the first page of hazardous waste manifests, land disposal restriction forms, or other documentation required by applicable regulations governing transport and disposal of Hazardous Wastes for disposal of hazardous substances within 5 days of off haul.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for submitting Waste Disposal Records per the specification.	• EBMUD is responsible for verifying implementation.	• Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(J), Sampling and Analysis Plan* • Submit a project-specific Sampling and Analysis Plan (SAP) for projects including but not limited to sanitary sewer discharge samples, waste characterization samples, air samples, and site characterization involving soil, groundwater, and soil gas samples requiring laboratory analysis.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for submitting a Sampling and Analysis Plan where sampling and analysis is required.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to construction • Construction
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 3.4, Waste Management and Disposal* • Segregate, stage, label/mark, and properly manage waste at the jobsite in a manner that complies with applicable regulations and to facilitate proper disposal. • Characterize all liquid wastes, solid wastes, and other wastes prior to removing from the project site. Sampling and analysis shall adhere to the Sampling and Analysis Plan. • EBMUD will review laboratory analysis results for EBMUD acceptance of Contractor Characterization of waste classification. • EBMUD will obtain a Hazardous Waste Generator's EPA ID Number if required for disposal of Hazardous Wastes and treated wood waste. • EBMUD will give Contractor written notice to dispose of all or a portion of the waste material at a Class I disposal site if EBMUD determines that such disposal is required based on review of Contractors waste characterization and the analytical results of samples collected. • Waste materials from different sites shall not be transported or mixed until the material is determined to be non-hazardous. Unless pre-approved by EBMUD for direct hauling, excavation materials shall be stored or stockpiled at each site until classified and accepted for movement by EBMUD. • Transport materials and/or wastes in accordance with all local, state, and federal laws, rules, and regulations. • Contractor shall not assume any soil is approved for offsite reuse. Offsite reuse is only permitted with explicit approval from EBMUD after a careful review of the Contractor's proposed reuse.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for proper waste management per the specification.	• EBMUD is responsible for verifying implementation.	• Construction
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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. **Impact HAZ-3:** The project has the potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. **Impact HAZ-5:** Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.	**EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements and Site Activities** *Section 1.3(F), Submit an Emergency Action Plan* • Submit an Emergency Action Plan that prepares responses to employee accident/injury events, or any serious unplanned event (e.g.: utility break, fire, structure collapse, etc.) that requires any first aid provider or response agencies (e.g.: fire departments, utility agencies, rescue teams, etc.)	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for submitting an Emergency Action Plan.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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. **Impact HAZ-3:** The project has the potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	**EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements and Site Activities** *Section 1.3(N), Submit USA Marking Record* • Submit utility locate and marking number and documents, and verification of markings. • Make available to EBMUD the record of all subsequent utility marking events and meetings on the project.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for marking utilities.	• EBMUD is responsible for verifying implementation.	• Prior to construction
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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.	EBMUD Engineering Standard Practice 514 Identifying Buried Conflicts • EBMUD Engineering Standard Practice 514 provides guidelines and minimum steps required for the investigation needed to identify existing underground utilities, and to establish a uniform approach for site reconnaissance of existing buried conflicts, including active and abandoned utilities (EBMUD, 2008).	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• EBMUD is responsible for incorporating underground utilities into the Project design.	• EBMUD is responsible for verifying implementation.	• During final design
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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.	**EBMUD Standard Construction Specification 02 82 13, Asbestos Control Activities** *Section 1.1, Compliance and Intent* • Furnish all labor, materials, facilities, equipment, services, employee training and testing, permits, and agreements necessary to perform the asbestos removal in accordance with these specifications and with the latest regulations from the U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Bay Area Air Quality Management District (BAAQMD), the Cal/EPA Department of Toxic Substance Control, the California Department of Occupational Safety and Health (DOSH), and other federal, state, county, and local agencies. Whenever there is a conflict or overlap of the above references, the most stringent provision is applicable. • During demolition procedures, the Contractor shall protect against contamination of soils, water, adjacent residences and properties, and the airborne release of hazardous materials and dusts. The Contractor will incur the costs associated with the implementation of controls and, if necessary, remediation. The Contractor shall be responsible for all necessary cleanup of contaminated areas/properties to pre-work condition and for all associated costs. It is the Contractor's responsibility to confirm and document the quantities of asbestos material to be removed. • Asbestos materials uncovered during the demolition activities shall be disposed of in an approved manner complying with all applicable federal, state, and local regulations. Appropriate waste manifests shall be furnished to EBMUD as per Sections 01 35 24 – Project Safety Requirements, and 01 35 44 – Environmental Requirements. Materials are conveyed to the Contractor "as is," without any warranty, expressed or implied, including but not limited to, any warranty to marketability or fitness for a particular purpose, or any purpose. *Section 1.5, Submittals*	• Phase 1	• SOWTP site reclaim facility demolition area	• Contractor is responsible for providing proper remediation of asbestos during demolition, preparing a plan for demolition, documenting the quantities of asbestos removed, monitoring during asbestos removal, and proper disposal of asbestos containing materials.	• EBMUD is responsible for verifying implementation.	• Demolition

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	• Project Safety and Health Plan: The Contractor shall provide a Project Safety and Health Plan prior to project initiation as specified in Section 01 35 24. • Submit a detailed plan of the procedures proposed for use in complying with the regulations included in this specification. The plan shall include the location and layout of decontamination areas, the sequencing of asbestos work, the interface of trades involved in the performance of work, disposal plan including location of approved disposal site, and a detailed description of the methods to be employed to control pollution. Expand upon the use of portable HEPA ventilation system, method of removal to prohibit visible emissions in work area, and packaging of removed asbestos debris. Include asbestos abatement in the Construction and Demolition Waste Disposal Plan, in accordance with Section 01 35 44. • Certificates of Compliance: Submit certification that equipment required to contain airborne asbestos fibers conform to ANSI Z9.2. *1.6, Submittals (Job in Progress)* • Provide to EBMUD, within 72 hours of sampling, test results of the personal air sampling described in Article 3.2. • Provide to EBMUD, results of required air sampling established at property and project boundaries within 72 hours of sampling, and measures the contractor has taken to improve non-conforming outcomes based on the results. *Section 3.1, Initial Area Isolation* • Demarcate the demolition area and specific hazard zones where asbestos removal occurs. Post warning signs and labels as required by Cal-EPA, BAAQMD, Cal OSHA Section 1529, and additional signs and warnings as directed by EBMUD. • Ensure asbestos hazards remain on site for proper abatement and disposal procedures. Ensure worker activity (access and egress) does not cause asbestos hazards to leave the project boundaries. *3.2, Work Activities* • General Procedures: Perform all asbestos related work and comply with the general safety and health provisions in conformance with Cal/OSHA Title 8 CCR Section 1529. For asbestos abatement work, use general work practices, work practices for encapsulation as specified in 34 CFR Part 231 Appendix C, applicable CAL OSHA requirements, and other appropriate work procedures approved by the Environmental Protection Agency (EPA). • Suppress air-borne particulates using a minimum of two misting units operated simultaneously from the following product series given below: – Monsoon Atomizing Misting System, Buffalo Turbine, www.buffaloturbine.com – Or equal as approved by EBMUD • Ensure air borne asbestos limits are not exceeded and are compliance with U.S. Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Bay Area Air Quality Management District (BAAQMD), the Cal/EPA Department of Toxic Substance Control, the California Department of Occupational Safety and Health (DOSH), and other federal, state, county, and local agencies requirements for airborne emissions.					

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	• Monitoring: Monitoring of airborne concentrations of asbestos shall be in accordance with Title 8CCR section 1529, and BAAQMD requirements. – Baseline air monitoring shall be conducted prior to demolition work and prior to asbestos related work. Base air measurements shall be established at the property boundary in the east, west, north and south coordinates. – If monitoring shows airborne concentrations greater than regulatory asbestos control limits, stop all work, correct the conditions causing the excessive levels, and notify EBMUD immediately. – Conduct at a minimum one set of post-asbestos removal/demolition air monitoring established at the property boundary and in the same location of baseline monitoring in the east, west, north and south coordinates.					
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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.	**EBMUD Standard Construction Specification 02 83 13, Lead Hazard Control Activities** *Section 1.4, Submittals* • Lead Demolition Plan: Lead-containing coating handling, engineering control, removal, and disposal procedures • Lead-Containing Coating Demolition Work: All Contractor's supervisors and workers performing lead-containing coating work shall meet the requirements of the California Department of Health Services (DHS) lead-related construction interim certification (17 CCR 350001).	• Phase 1	• SOWTP site	• Contractor is responsible for preparing a lead demolition plan and using workers that have proper certification for lead demolition activities.	• EBMUD is responsible for reviewing and approving the plan and for verifying certification.	• Demolition
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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.	**EBMUD Standard Construction Specification 02 83 13, Lead Hazard Control Activities** *Section 3.2, Air Monitoring* • The purpose of any air monitoring conducted by EBMUD will be to detect possible release of dusts (lead) emanating from the work area. This testing will be conducted independently of the air monitoring described in Section 01 35 24.	• Phase 1	• SOWTP site	• EBMUD is responsible for determining whether air monitoring is required. • Contractor is responsible for conducting air monitoring if directed by EBMUD based on the specification.	• EBMUD is responsible for verifying implementation.	• Demolition
Impacts HAZ-1 and HAZ-2: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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.	**EBMUD Procedure 711, Hazardous Waste Removal** • The procedure defines hazardous waste and establishes responsibilities for removal of hazardous wastes from EBMUD facilities. Procedure 711 outlines specific steps and responsibilities for: characterizing the waste and determining what analyses are needed to classify the waste; coordinating waste disposal, re-use 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.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for following procedures for proper removal of hazardous waste.	• EBMUD is responsible for verifying implementation.	• Construction
Impact HAZ-4: The project has the potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	**EBMUD Standard Construction Specification 01 55 26, Traffic Regulation** *Section 1.1, Summary* • All proposed street closures shall be clearly identified in the Traffic Control Plan (TCP) and shall conform to the section "Traffic Control Devices" below. Construction area signs for street closure and detours shall be posted a minimum of forty-eight (48) hours prior to the commencement of street closure. Contractor shall maintain safe access around the project limit at all times. Street closures shall be limited to those locations indicated on the construction documents. *Section 1.2, Submittals*	• Phase 2	• Central North Aqueduct pipeline	• Contractor is responsible for preparing a Traffic Control Plan conforming to the specification and obtain approval from the local jurisdiction.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to construction.

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	• 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 Manual on Uniform Traffic Control Devices. Traffic Control Plan shall 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.					
Impact HAZ-4: The project has the potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	**EBMUD Standard Construction Specification 01 55 26, Traffic Regulation** *Section 3.1, General* • For complete road closures, immediate emergency access to be provided if needed to emergency response vehicles.	• Phase 2	• Central North Aqueduct pipeline	• Contractor is responsible for providing access to emergency response vehicles.	• EBMUD is responsible for verifying implementation.	• Construction
Impact HAZ-5: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.	**EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements and Site Activities** *Section 1.3(F), Submit an Emergency Action Plan* • Submit an Emergency Action Plan that prepares responses to employee accident/injury events, or any serious unplanned event (e.g.: utility break, fire, structure collapse, etc.) that requires any first aid provider or response agencies (e.g.: fire departments, utility agencies, rescue teams, etc.) *Section 3.2(F), Fire Prevention and Protection* • Perform all Work in a fire safe manner and supply and maintain on the site adequate fire-fighting equipment capable of extinguishing incipient fires. Comply with applicable federal, local, and state fire prevention regulations. Where these regulations do not apply, applicable parts of the National Fire Prevention Standards for Safeguarding Building Construction Operations (NFPA No. 241) shall be followed. • A long-handled, round-point shovel, or a fire extinguisher shall be kept at an accessible (unlocked) location on the construction site at all times. • Earthmoving and portable equipment with internal combustion engines shall be equipped with a spark arrestor to reduce the potential for igniting a wildfire. Such equipment shall be maintained to ensure proper functioning of spark arrestor. • For all work occurring between April 1 and December 1, or any other periods during which a high fire danger has been identified: – Equipment that could produce a spark, fire, or flame shall not be used within 10 feet of any flammable materials. – Portable tools powered by gasoline-fueled internal combustion engines shall not be used within 25 feet of any flammable materials. • Vegetation management for fire prevention and protection – Prior to and during construction: ▪ Create and maintain a defensible space (100 feet or to EBMUD property boundary, whichever is shorter) around construction site, construction ingress and egress sites through landscaping, mowing, disking, and/or spraying dry brush or native grasses to a height of 4-inches or less. ▪ Remove dead trees within 100 feet of construction site. ▪ Limb up trees within 100 feet of construction site so that no leafy foliage, twigs or branches are within 5-feet of the ground. To maintain	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for implementing fire safe prevention practices during construction.	• EBMUD is responsible for verifying implementation.	• Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	tree health, tree limbing shall not remove more than 25 percent of a tree canopy within one growing season. ▪ Ensure and maintain 5-feet of vertical clearance between roof surfaces and portions of trees overhanging all structures within construction site, and keep roofs free of leaves, needles, twigs, and other combustible matter. To maintain tree health, tree limbing shall not remove more than 25 percent of a tree canopy within one growing season. ▪ Keep all overhanging trees, shrubs, and other vegetation, or portions thereof, free of dead limbs, branches, and other combustible matter. – Neatly stack all combustible materials away from structures within construction site and have all combustible growth cleared 15-feet around the stack. • During construction, maintain an unobstructed horizontal clearance at access drives of not less than the required width of the access drives, and an unobstructed vertical clearance of not less than 13 feet 6 inches above all roadways.					
	Hydrology					
Impact HYD-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. **Impact HYD-3:** Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner 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 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. **Impact HYD-4:** In a flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation. **Impact HYD-5:** Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.1(B), Site Activities* • Protect storm drains and surface waters from impacts of project activity. • Store materials and wastes such as demolition material, soil, sand, asphalt, rubbish, paint, cement, concrete or washings thereof, oil or petroleum products, or earthen materials in a manner to prevent it from being washed by rainfall or runoff outside the construction limits. • Reuse or dispose of excess material consistent with all applicable legal requirements and disposal facility permits. • Clean up all spills and immediately notify EBMUD in the event of a spill. • Equip stationary equipment such as motors, pumps, and generators with drip pans. • 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, remove ditches, dikes, or other ground alterations made by the Contractor. The ground surfaces shall be returned to their former condition, or as near as practicable, in EBMUD's opinion. • Prevent visible dust emissions from leaving the work area. • Maintain construction equipment in good operating condition to reduce emissions. • Handle, store, apply, and dispose of any chemical or hazardous material used in the performance of the Work in a manner consistent with all applicable federal, state, and local laws and regulations.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for implementing specification requirements.	• EBMUD is responsible for verifying implementation.	• Construction • Post-construction
Impact HYD-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(A), Stormwater Management*	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for preparing the required plans.	• EBMUD is responsible for reviewing and approving the plans.	• Prior to construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
Impact HYD-3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner 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 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. **Impact HYD-4:** In a flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation. **Impact HYD-5:** Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	• Submit the Notice of Intent, Storm Water Pollution Prevention Plan (SWPPP), and all other documents prepared for compliance with the General Construction Storm Water Permit (NPDES No. CAS000002) to EBMUD and upload them in the SWRCB's Storm Water Multi-Application & Report Tracking System (SMARTS). – EBMUD will electronically acknowledge appropriate submittals in SMARTS after review. – Contractor shall pay for all registration and annual fees under this permit/program • Submit a Storm Water Management 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 any other contaminants known to exist at the jobsite location as described in Document 00 31 24 – Materials Assessment Information.					
Impact HYD-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. **Impact HYD-3:** Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: a. 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. **Impact HYD-5:** Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(B), Water Control and Disposal Plan* • Submit a detailed Water Control and Disposal Plan that complies with all requirements of the Specification and includes provisions for the types of discharges and permits in a through c below, if applicable to the project. – Drinking Water System Discharges ▪ Plan shall comply with Drinking Water Systems Discharges Statewide Permit, General Order CAG140001. ▪ Submit all records of actual discharges, monitoring, water quality data, and beneficial reuse described above to EBMUD. – Non-Stormwater Discharges ▪ 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.	• Phase 1 • Phase 2	• SOWTP Site • Central North Aqueduct pipeline	• Contractor is responsible for preparing the Water Control and Disposal Plan.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to construction
Impact HYD-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(E), Spill Prevention and Response Plan* • Submit plan detailing the means and methods for preventing and controlling the spilling of known hazardous substances used on the jobsite or staging areas. – Include a list of the hazardous substances proposed for use or generated by the Contractor on site, including petroleum products. – Define measures that will be taken to prevent spills, monitor hazardous substances, and provide immediate response to spills.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for preparing the Spill Prevention and Response Plan.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	– Include provisions for notification of EBMUD or alternate contact and appropriate agencies including phone numbers; spill-related worker, public health, and safety issues; spill control, and spill cleanup. – Map showing hazardous materials project-related storage locations, names of the hazardous materials, and volumes/quantities. – Submit a Safety Data Sheet (SDS) for each hazardous substance proposed to be used prior to delivery of the material to the jobsite.					
Impact HYD-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. **Impact HYD-3:** Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: a. Result in substantial erosion or siltation on or off-site.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *3.2, Stormwater* • Conduct all inspections, sampling, reporting, and other required provisions in the SWPPP. • Upload all necessary documents to SMARTS to comply with the Construction General Permit. • Follow all provisions in local storm water permits and/or rules during construction. • Maintain sufficient best management practices or other controls as outlined in the storm water management plan to prevent impacts to storm water from pollution including soil, dust, stored hazardous materials, and construction activities.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for permitting, inspections, and uploading documents to SMARTS per the specification.	• EBMUD is responsible for verifying implementation.	• Construction
Impact HYD-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	**EBMUD's Standard Construction Specification 01 74 05, Cleaning** *Section 3.1(B), Cleaning* • Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws. Do not burn or bury rubbish and waste materials on project site. Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains. Do not dispose of wastes into streams or waterways.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for compliance with applicable laws and complying with the specification.	• EBMUD is responsible for verifying implementation.	• Construction
Impact HYD-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. **Impact HYD-5:** Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	**EBMUD Standard Construction Specification 32 92 19.16, Hydraulic Seeding** • Defines requirements for hydroseeding of areas disturbed during construction. The Standard Construction Specification includes a seed mix composition for pure live seed, requirements for inoculant sources, fertilizer, mulch, and application rates for hydroseeding (EBMUD 2016).	• Phase 1 • Phase 2	• Temporary disturbance areas subject to reseeding	• Contractor is responsible for obtaining the hydroseed mix.	• EBMUD is responsible for verifying implementation.	• Construction
Noise						
Impact NOI-1: Result in the 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 Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(G), Noise Control and Monitoring Plan* • 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 EBMUD's acceptance prior to any work at the jobsite. The plan shall detail the equipment and methods used to monitor compliance with the plan.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contract is responsible for preparing a Noise Control and Monitoring Plan.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to construction
Impact NOI-1: Result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 3.8, Noise Control*	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for implementing the noise control measures during	• EBMUD is responsible for verifying implementation.	• During construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
established in the local general plan or noise ordinance, or applicable standards of other agencies	• Comply with sound control and noise level rules, regulations, and local ordinances and in the CEQA documents which apply to any work performed pursuant to the contract. Noise-generating activities shall be limited to the hours specified in Section 01 14 00. • Take 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. • 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. • Use the best available noise control techniques (including mufflers, intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) for all equipment and trucks, as necessary. • Truck operations (haul trucks and concrete delivery trucks) shall be limited to the daytime hours specified in Section 01 14 00. • Stationary noise sources (e.g., chippers, grinders, compressors) shall be located as far from sensitive receptors as possible. 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. • If impact equipment (e.g., jack hammers, pavement breakers, rock drills etc.) is used during project construction, Contractor is responsible for taking appropriate measures, including but not limited to the following: – Hydraulically or electric-powered equipment shall be used wherever feasible to avoid the noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used. External jackets on the tools themselves shall be used, where feasible. Quieter procedures, such as drilling rather than impact equipment, shall be used whenever feasible. It is the Contractor's responsibility to implement any measures necessary to meet applicable noise requirements. – Impact construction including jackhammers, hydraulic backhoe, concrete crushing/recycling activities, vibratory pile drivers etc. shall be limited to the daytime hours specified in Section 01 14 00. – Erect temporary noise barriers or noise control blankets around the construction site, particularly along areas adjacent to residential buildings. – Limit the noisiest phases of construction to 10 workdays at a time, where feasible. – Notify neighbors/occupants within 300 feet of project construction at least thirty days in advance of extreme noise generating activities about the estimated duration of the activity. – Noise Monitoring shall be conducted periodically during noise generating activities. Monitoring shall be conducted using a precision sound-level meter that is in conformance with the American National Standards Institute (ANSI) Standard S1.4, Specification for Sound Level Meters. Monitoring results shall be submitted weekly to EBMUD.			construction activities. Contractor will notify neighbors, where required.		

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
Impact NOI-1: Conflict with or obstruct implementation of the applicable air quality plan. **Impact NOI-2:** Result in the generation of excessive groundborne vibration or groundborne noise levels.	**Procedure 600** • Designates a Public Affairs liaison to respond to construction-related issues, including noise. Contact information for the Public Affairs liaison (i.e., phone number, email address) and capital project site address will be provided via conspicuous signage at construction sites, on all advance notifications, and on the District project website. The Public Affairs liaison will coordinate with the construction project manager/engineer and any contractors to resolve any issues. • -Notifies residents at least seven days (and preferably fourteen days) in advance of potentially disruptive construction activities (e.g., noise, traffic, parking); notifications will include the activities' geographical extent and estimated duration. The Public Affairs liaison will coordinate with the project manager/engineer and any contractors to provide advance notification via email, mailed notices, door-hangers, social media, or other means, as appropriate	• Phase 1 • Phase 2	• SOWTP Site • Central North Aqueduct pipeline	• EBMUD will designate a Public Affairs liaison who is responsible for responding to any public complaints during construction. • EBMUD will send notices to residents per the specification.	• EBMUD is responsible for verifying all notices are properly provided.	• Construction
Impact NOI-2: Result in the generation of excessive groundborne vibration or groundborne noise levels.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 1.4(H), Vibration Control and Monitoring Plan* • Submit a plan detailing the means and methods for controlling and monitoring surface vibration generated by demolition and other work on the site for EBMUD's acceptance prior to any work at the jobsite. The plan shall detail the equipment and methods used to monitor compliance with the plan.	• Phase 1 • Phase 2	• SOWTP site demolition areas • Central North Aqueduct pipeline	• Contractor is responsible for preparing a Vibration Control and Monitoring Plan.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to demolition and Central North Aqueduct pipeline construction
Impact NOI-2: Result in the generation of excessive groundborne vibration or groundborne noise levels.	**EBMUD Standard Construction Specification 01 35 44, Environmental Requirements** *Section 3.7, Vibration Control* • Limit continuous 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.	• Phase 2	• Central North Aqueduct pipeline	• Contractor is responsible for monitoring and limiting vibration per the specification.	• EBMUD is responsible for verifying implementation.	• Construction
	Transportation					
Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. **Impact TRA-3:** Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	**EBMUD Standard Construction Specification 01 32 36, Video Monitoring and Documentation** *Section 1.1, Summary* • Audio-video documentation utilizing digital recording of surface features, supplemented by photography, that may be taken along the entire length of the project and may include work and storage areas, adjacent properties, and/or intersecting roadways. – Prior to audio-video recording of the project, all areas to be inventoried shall be investigated visually with notations made of items not readily visible by audio-video recording or supplemental photographic methods. *Section 1.2, Site Survey Audio-Video Recording Requirements* • The Contractor shall employ a qualified videographer, experienced in taking properly documented and annotated video to perform the Pre-Construction Site Survey, which shall be completed within 20 days after the issuance of the Notice to Proceed. The Pre-Construction Site Survey shall be completed and accepted prior to EBMUD issuance of the Notice to Commence Field Work (NTCFW).	• Phase 2	• Central North Aqueduct pipeline	• Contractor is responsible for pre- and post-construction surveys and repairing damage.	• EBMUD Designated Videographer is responsible for video recording. • EBMUD is responsible for verifying repairs.	• Prior to Construction • Post construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	• Prior to commencement of the Pre-Construction Site Survey recording, the Contractor shall notify EBMUD in writing within 48 hours of the recording. EBMUD will provide a designated representative to accompany and observe audio-video recording operations. Audio-video recording completed without an EBMUD Representative present will be unacceptable unless specifically authorized in writing and in advance by EBMUD. • Provide a copy of the Pre-Construction Site Survey to EBMUD for review and comment. The Survey shall include all audio-video recordings, photography, annotations and all documentation. If EBMUD determines that critical areas are missing from the survey, the Contractor shall provide additional recording and documentation of the requested area and locations. • Post-Construction Site Survey: The Contractor shall perform a Post-Construction Site Survey of the same areas recorded in the Pre-Construction Site Survey following in the same path/route of the Pre-Construction Site Survey. EBMUD will review post-construction survey findings with the Contractor and develop a complete listing of project site restoration requirements to be accomplished by the Contractor. Prior to commencement of Post-Construction Site Survey recording, the Contractor shall notify EBMUD in writing within 48-hours of the recording. EBMUD will provide a designated representative to accompany and observe audio-video recording operations. Audio-video recording completed without an EBMUD Representative present will be unacceptable unless specifically authorized in writing and in advance by EBMUD. • The Contractor shall be responsible for repairing any damage or defects not documented as existing prior to construction.					
Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. **Impact TRA-3:** Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). **Impact TRA-4:** Result in inadequate emergency access.	**EBMUD Standard Construction Specification 01 55 26, Traffic Regulation** *Section 1.1, Summary* • All proposed street closures shall be clearly identified in the Traffic Control Plan (TCP) and shall conform to the section "Traffic Control Devices" below. Construction area signs for street closure and detours shall be posted a minimum of forty-eight (48) hours prior to the commencement of street closure. Contractor shall maintain safe access around the project limit at all times. Street closures shall be limited to those locations indicated on the construction documents. *Section 1.2(A), Submittals* • 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 Manual on Uniform Traffic Control Devices (MUTCD). Traffic Control Plan shall include: – Circulation and detour plans to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible. – 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.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for preparing and submitting a Traffic Control Plan.	• EBMUD is responsible for reviewing and approving the Traffic Control Plan.	• Prior to Construction • Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	– Procedures, to the extent feasible, to schedule construction of project elements to minimize overlapping construction phases that require truck hauling. – Designated Contractor staging areas for storage of all equipment and materials, in such a manner to minimize obstruction to traffic. – Locations for parking by construction workers. *Section 1.3, Quality Assurance* • Detailed traffic control plan shall be prepared by a California licensed Traffic Engineer. • The Traffic Engineer who prepares the detailed traffic control plan shall be available at any time during the life of the contract to modify the traffic control plan if and as required by the agency having jurisdiction. • No changes or deviations from the approved detailed traffic control plan shall be made, except temporary changes in emergency situations, without prior approval of the Traffic Engineer, the EBMUD's Engineer, and all agencies having jurisdiction. • Immediately notify the Traffic Engineer, the EBMUD's Engineer, and the agencies having jurisdiction of occurrences that necessitate modification of the approved Traffic Control Plan.					
Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. **Impact TRA-3:** Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). **Impact TRA-4:** Result in inadequate emergency access.	**EBMUD Standard Construction Specification 01 55 26, Traffic Regulation** *Section 2.1(A) Traffic Control Devices* • 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. – Portable signals shall not be used unless permission is given in writing by the agency having jurisdiction. – 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.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for implementing traffic control devices.	• EBMUD is responsible for verifying implementation.	• Construction
Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. **Impact TRA-3:** Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). **Impact TRA-4:** Result in inadequate emergency access.	**EBMUD Standard Construction Specification 01 55 26, Traffic Regulation** *3.1, General* • 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. • 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. • 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. • 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. • Provide temporary signs as required by the traffic control plan and remove signs when no longer required.	• Phase 2	• Central North Aqueduct pipeline	• Contractor is responsible for implementing traffic controls.	• EBMUD is responsible for verifying implementation.	• Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	• Haul routes for each construction phase shall be provided to all trucks serving the site during the construction period. • For complete road closures, immediate emergency access to be provided if needed to emergency response vehicles. • A minimum of twelve (12) foot travel lanes must be maintained unless otherwise approved.					
Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. **Impact TRA-3:** Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	**EBMUD Standard Construction Specification 01 55 26, Traffic Regulation** *Section 3.2, Alternative One-Way Traffic* • 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: – The approximate beginning and ending dates that traffic delays will be encountered. – The maximum time that traffic will be delayed. • The maximum delay time shall be approved by the agency having jurisdiction.	• Phase 2	• Central North Aqueduct pipeline (where alternative one-way traffic is used)	• Contractor is responsible for implementing specification where alternative one-way traffic has been authorized.	• EBMUD is responsible for verifying implementation and agency approval.	• Construction
Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. **Impact TRA-3:** Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	**EBMUD Standard Construction Specification 01 55 26, Traffic Regulation** *Section 3.3(A), Flagging* • Provide flaggers to control traffic where required by the approved traffic control plan. – 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. – Flaggers shall be employed full time on traffic control and shall have no other duties.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for implementing flaggers.	• EBMUD is responsible for verifying implementation.	• Construction
Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. **Impact TRA-3:** Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). **Impact TRA-4:** Result in inadequate emergency access.	**EBMUD Standard Construction Specification 01 55 26, Traffic Regulation** *Section 3.4, Temporary Traffic Control* • 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 directions 2 weeks in advance. • 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. • A minimum of 12-foot travel lanes must be maintained unless otherwise approved. • Access to driveways will be maintained at all times unless other arrangements are made. • All traffic control devices shall be removed from view when not in use. • Before leaving a work area, ensure the area is left orderly. Trenches must be backfilled or plated during non-working hours. • Sidewalks for pedestrians will remain open if safe for pedestrians. Alternate routes and signing will be provided if pedestrian routes are to be closed.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for implementing temporary traffic controls.	• EBMUD is responsible for verifying implementation.	• Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	**Procedure 600** • Designates a Public Affairs liaison to respond to construction-related issues, including noise. Contact information for the Public Affairs liaison (i.e., phone number, email address) and capital project site address will be provided via conspicuous signage at construction sites, on all advance notifications, and on the District project website. The Public Affairs liaison will coordinate with the construction project manager/engineer and any contractors to resolve any issues. • Notifies residents at least seven days (and preferably fourteen days) in advance of potentially disruptive construction activities (e.g., noise, traffic, parking); notifications will include the activities' geographical extent and estimated duration. The Public Affairs liaison will coordinate with the project manager/engineer and any contractors to provide advance notification via email, mailed notices, door-hangers, social media, or other means, as appropriate	• Phase 1 • Phase 2	• SOWTP Site • Central North Aqueduct pipeline	• EBMUD will designate a Public Affairs liaison who is responsible for responding to any public complaints during construction. • EBMUD will send notices to residents per the procedure.	• EBMUD is responsible for verifying all notices are properly provided.	• Construction
Tribal Cultural Resources						
Impact TCR-1: 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 define in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe.	**EBMUD Standard Construction Specification 01 35 45, Biological, Cultural, and Paleontological Requirements** *Section 3.1, Training and Certification* • Before beginning construction, all Contractor personnel involved in ground-disturbing activities are required to attend an environmental training program provided by EBMUD, of up to one day for site supervisors, foremen and project managers and up to 30 minutes for non-supervisory Contractor personnel. Contractor general personnel will receive a worker environmental awareness training. • The Contractor is responsible for ensuring that all workers requiring environmental training are identified to EBMUD. • Prior to accessing or performing construction work, the identified Contractor personnel shall: – Sign a wallet card provided by EBMUD verifying that the Contractor personnel has attended the appropriate level of training relative to their position; have understood the contents of the environmental training, and shall comply with all project environmental requirements. – Display an environmental training hard hat decal (provided by EBMUD after completion of the training) at all times.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for attending training and maintaining all required documentation of training.	• EBMUD is responsible for verifying workers have received training.	• Prior to construction • Construction
Impact TCR-1: 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 define in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe.	**EBMUD Standard Construction Specification 01 35 45, Biological, Cultural, and Paleontological Resource Requirements** *Section 3.3, Protection of Cultural and Paleontological Resources* • Confidentiality of Information on Cultural and Paleontological Resources – 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 EBMUD 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. – Pursuant to California Government Code Section 6254.10, cultural resource information is protected from public disclosure. The Contractor	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• EBMUD designated archaeologist is responsible for providing contractor training. • Contractor is responsible for attending training. • Contract is responsible for notifying EBMUD of any potential discovery of cultural resources and halt work per the specification. • EBMUD is responsible for retaining a qualified	• EBMUD is responsible for verifying implementation.	• Prior to construction • Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	agrees that the 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 EBMUD. • 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. • In addition to the training identified in Article 3.1.A above, identified Contractor personnel shall attend a cultural and paleontological resources training course provided by EBMUD of up to two hours. The training program will be completed in person or by watching a video, at an EBMUD designated location, conducted or prepared by a Qualified Archaeologist and/or Paleontologist. The program will discuss cultural and paleontological resources awareness within the project work limits, including the responsibilities of Contractor personnel, applicable mitigation measures, confidentiality, and notification requirements. Prior to accessing the construction site, or performing site work, identified Contractor personnel shall: – Sign an attendance sheet provided by EBMUD verifying that all Contractor construction personnel involved in ground disturbing activities 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 Resources" document, and shall comply with all project environmental requirements. • In the event that potential cultural or paleontological resources are discovered at the site of construction, the following procedures shall be instituted: – 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. ▪ The Contractor shall immediately allow EBMUD to evaluate the find. The Contractor is responsible for stopping work and notifying EBMUD and shall not recommence work until authorized to do so by EBMUD. ▪ EBMUD 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 NHPA), construction shall cease in an area determined by the archaeologist until a management plan has been prepared, approved by EBMUD, and implemented to the satisfaction of the archaeologist (and Native American representative if the resource is prehistoric, who shall be identified by the NAHC). In consultation with EBMUD, the archaeologist (and Native American representative) will determine when construction can resume. – Discovery of human remains requires that all construction activities immediately cease at, and within 100 feet of the location of discovery. ▪ The Contractor shall immediately notify EBMUD who will engage a qualified archaeologist provided by EBMUD to evaluate the find. The Contractor is responsible for stopping work and notifying EBMUD and shall not recommence work until authorized to do so by EBMUD.			archaeologist to inspect any finds as needed. • EBMUD is responsible for contacting the County coroner if any human remains are found.		

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	▪ EBMUD 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 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 EBMUD for the appropriate means of treating the human remains and any associated funerary objects. ▪ Otherwise, the County Coroner shall be allowed to complete their investigation and the Contractor shall not recommence work until authorized to do so by both the Coroner and EBMUD. • If EBMUD determines that the cultural or paleontological resource discovery requires further evaluation, at the direction of EBMUD, the Contractor shall suspend all construction activities at the location of the find and within a larger radius, as required.					
	Wildfire					
Impact Wildfire-1: Substantially impair an adopted emergency response plan or emergency evacuation plan.	**EBMUD Standard Construction Specification 01 55 26, Traffic Regulation** *Section 1.1, Summary* • All proposed street closures shall be clearly identified in the Traffic Control Plan (TCP) and shall conform to the section "Traffic Control Devices" below. Construction area signs for street closure and detours shall be posted a minimum of forty-eight (48) hours prior to the commencement of street closure. Contractor shall maintain safe access around the project limit at all times. Street closures shall be limited to those locations indicated on the construction documents. *Section 1.2(A), Submittals* • 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 Manual on Uniform Traffic Control Devices (MUTCD). Traffic Control Plan shall include: – Circulation and detour plans to minimize impacts to local street circulation. Use haul routes minimizing truck traffic on local roadways to the extent possible. – 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. – Procedures, to the extent feasible, to schedule construction of project elements to minimize overlapping construction phases that require truck hauling.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for preparing and submitting a Traffic Control Plan.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to Construction • Construction
Impact Wildfire-1: Substantially impair an adopted emergency response plan or emergency evacuation plan.	**EBMUD Standard Construction Specification 01 55 26, Traffic Regulation** *Section 3.1, General* • For complete road closures, immediate emergency access to be provided if needed to emergency response vehicles.	• Phase 2	• Central North Aqueduct pipeline	• Contractor is responsible for implementing the measure	• EBMUD is responsible for verifying implementation.	• Construction
Impact Wildfire-2: 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.	**EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements and Site Activities** *Section 1.3(F), Submit an Emergency Action Plan*	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for submitting an Emergency Action Plan.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	• Prepare responses to employee accident/injury events, or any serious unplanned event (e.g.: utility break, fire, structure collapse, etc.) that requires any first aid provider or response agencies (e.g.: fire departments, utility agencies, rescue teams, etc.)					
Impact Wildfire-2: 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.	**EBMUD Standard Construction Specification 01 35 24, Project Safety Requirements and Site Activities** *Section 3.2(F), Fire Prevention and Protection* • Perform all work in a fire safe manner and supply and maintain on the site adequate fire fighting equipment capable of extinguishing incipient fires. Comply with applicable federal, local, and state fire prevention regulations. Where these regulations do not apply, applicable parts of the National Fire Prevention Standards for Safeguarding Building Construction Operations (NFPA No. 241) shall be followed. • A long-handled, round-point shovel, or a fire extinguisher shall be kept at an accessible (unlocked) location on the construction site at all times. • Earthmoving and portable equipment with internal combustion engines shall be equipped with a spark arrestor to reduce the potential for igniting a wildfire. Such equipment shall be maintained to ensure proper functioning of spark arrestor. • For all work occurring between April 1 and December 1, or any other periods during which a high fire danger has been identified: – Equipment that could produce a spark, fire, or flame shall not be used within 10 feet of any flammable materials. – Portable tools powered by gasoline-fueled internal combustion engines shall not be used within 25 feet of any flammable materials. • Vegetation management for fire prevention and protection • Prior to and during construction: – Create and maintain a defensible space (100 feet or to EBMUD property boundary, whichever is shorter) around construction site, construction ingress and egress sites through landscaping, mowing, disking, and/or spraying dry brush or native grasses to a height of 4 inches or less. – Remove dead trees within 100 feet of construction site. – Limb up trees within 100 feet of construction site so that no leafy foliage, twigs or branches are within 5-feet of the ground. To maintain tree health, tree limbing shall not remove more than 25 percent of a tree canopy within one growing season. – Ensure and maintain 5-feet of vertical clearance between roof surfaces and portions of trees overhanging all structures within construction site, and keep roofs free of leaves, needles, twigs, and other combustible matter. To maintain tree health, tree limbing shall not remove more than 25 percent of a tree canopy within one growing season. – Keep all overhanging trees, shrubs, and other vegetation, or portions thereof, free of dead limbs, branches, and other combustible matter. – Neatly stack all combustible materials away from structures within construction site and have all combustible growth cleared 15-feet around the stack. • During construction, maintain an unobstructed horizontal clearance at access drives of not less than the required width of the access drives, and an unobstructed vertical clearance of not less than 13 feet 6 inches above all roadways.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• Contractor is responsible for implementing the specification.	• EBMUD is responsible for verifying implementation.	• Prior to construction • Construction

Impact Area	EBMUD Practices and Procedures	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
Impact Wildfire-3: 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.	**Engineering Standard Practice 512.1, Water Main Design Criteria** • *Purpose:* Establishes criteria for design of water mains including pipeline replacements, improvements, relocations or new extensions in the distribution and transmission systems.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• EBMUD is responsible for implementing the design criteria.	• EBMUD is responsible for verifying implementation.	• Prior to construction
Impact Wildfire-3: 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.	**Engineering Standard Practice 550.1, Seismic Design Requirements** • *Purpose:* Establishes minimum criteria for seismic design of new and existing EBMUD facilities which include (but are not limited to) offices, operating centers, water and wastewater treatment plants, water and other liquids storage structures, pumping plants, retaining walls, underground vaults, pipelines, and other structures.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• EBMUD is responsible for implementing the design criteria.	• EBMUD is responsible for verifying implementation.	• Prior to construction

Table 2 Mitigation Monitoring and Reporting Program

Impact Area	Mitigation Measure	Project Phase	Location	Responsibility for Implementation	Responsibility for Monitoring and/or Enforcement	Timing of Implementation
	Aesthetics					
Impact AES-3 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) or in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.	**Mitigation Measure AES-1: Landscape Maintenance** • The contractor shall inspect all tree materials that are used for Project landscaping to ensure the health of trees and shrubs prior to planting. Any root bound, diseased, or otherwise unhealthy trees or shrubs shall be replaced prior to planting. • EBMUD will provide supplemental irrigation of all landscaped areas for a period of five (5) years following landscaping. Damage to the irrigation lines shall be repaired to ensure the irrigation is properly functioning during the dry season (April to October). EBMUD will conduct monitoring of all Project landscaping one year after planting and will replace in-kind any trees that are damaged, diseased, or failing to grow. All replaced, shrubs and trees shall be inspected for health prior to planting.	• Phase 1	• SOWTP Site	• Contractor is responsible for inspecting trees and providing supplemental irrigation.	• EBMUD is responsible for verifying implementation.	• Prior to landscaping • 1 year after landscaping • 5 years after landscaping
	Biological Resources					
Impact BIO-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.	• Mitigation Measure BIO-1: California Red-Legged Frog and Western Pond Turtle • No more than 24 hours before the date of initial ground disturbance and exclusion fence installation for the Central North Aqueduct pipeline jack and bore pits, a preconstruction survey for California red-legged frog and western pond turtle shall be conducted by a Designated biologist within the jack and bore pit disturbance areas. • If any California red-legged frog or potential burrows, or western pond turtle are found, the contractor shall allow the California red-legged frog or western pond turtle to leave the work area on its own or adjust the work area limits to avoid the California red-legged frog or western pond turtle. If avoidance is infeasible, EBMUD shall obtain any required USFWS permit/approval required to relocate the individual(s). • Temporary exclusion fencing shall be installed around the limits of the Central North Aqueduct pipeline northern jack and bore work area, so that special-status amphibians, reptiles, and mammals cannot enter the work area. Installation of exclusion fencing shall occur under the supervision of the Designated biologist and immediately following a clearance survey of the area. The exclusion fencing shall have a minimum aboveground height of 30 inches, and the bottom of the fence shall be keyed in at least 4 inches deep and backfilled with soil, sandbags, gravel, or other means to prevent wildlife from passing under the fencing. Exclusion fencing shall be installed to prevent species entry into active work areas, and to mark the limits of construction disturbance at equipment staging areas, site access routes, construction equipment and personnel parking areas, debris storage areas, and any other areas that may be disturbed. • The exclusion fencing shall be installed in a manner that reduces the potential for trapping migrating wildlife and for wildlife climbing over the fence, such as having the top of the fencing curved over on the outside of the fence. The exclusion fencing shall remain in place and be maintained for the duration of construction activities at the Central North Aqueduct pipeline northern jack and bore pit. Any damage to the exclusion fence shall be repaired within 48 hours of the observed damage.	• Phase 2	• Central North Aqueduct pipeline jack and bore pits	• EBMUD is responsible for hiring a qualified biologist to conduct surveys • Contractor is responsible for installing exclusion fence per the measure.	• EBMUD is responsible for verifying implementation.	• Prior to construction.
Impact BIO-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.	**Mitigation Measure BIO-2: Willow Riparian and Seasonal Wetland Habitat Protection and Restoration** • To the extent feasible, all areas of willow riparian habitat and seasonal wetlands shall be avoided during final Project design and construction. Construction limit fencing shall be used to limit the extent of construction to approved work areas. Construction mats shall be applied to the ground surface in areas of temporary disturbance within willow riparian and seasonal wetland habitats. Mats shall be applied before any vehicle activity in the area, to avoid rutting in wetland and willow riparian habitat.	• Phase 1 • Phase 2	• SOWTP site	• EBMUD is responsible for designing to minimize impacts, completing pre-construction surveys, and completing compensatory	• EBMUD is responsible for monitoring.	• Detailed design • Prior to construction. • Construction. • Post-construction

	• A preconstruction survey, including photos at five photo points that are representative of the temporarily impacted sensitive natural communities and transect monitoring, shall be conducted in the areas of temporary willow riparian and seasonal wetland impacts to document the following immediately before construction: – Species composition and percentage cover of each dominant and subdominant species; and – Relative cover of non-native species within each sensitive natural community. • All areas of temporary impact within willow riparian and seasonal wetland habitats shall be restored to pre-project conditions. The seasonal wetland and willow riparian area shall be planted with a native vegetation mix that is characteristic of the vegetation community. The planting palette for the seasonal wetland and willow riparian area shall be provided by a restoration specialist to EBMUD for submittal to CDFW for review and approval before construction. Temporarily disturbed areas shall be monitored annually for up to five years and maintained until the following success criteria have been met: – The area has a minimum of 80 percent vegetative cover with native willows and associated species in willow riparian areas and native hydrophytic vegetation typical of seasonal wetlands in the seasonal wetland areas. – Non-native species cover shall not exceed pre-project conditions/cover. • EBMUD will cause an annual monitoring report to be completed and submitted to EBMUD and CDFW for up to five years and until success criteria are met. The annual monitoring report shall include the results of photo documentation at the defined preconstruction photo points as well as document performance of the restoration relative to the success criteria. Any corrective actions needed to meet the success criteria shall be documented in the annual report and shall be implemented within the following year. Any areas that fail to meet the success criteria after five years of monitoring shall be treated as permanent impacts and require compensatory mitigation, in compliance with Mitigation Measure BIO-3.				mitigation and monitoring post-construction. • Contractor is responsible for minimizing impacts during construction and restoring areas of temporary impact.	
Impact BIO-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.	**Mitigation Measure BIO-3: Sensitive Natural Community Compensatory Mitigation** • Permanent impacts on willow riparian habitat and seasonal wetlands shall be compensated through on-site or off-site enhancement or creation of willow riparian habitat and seasonal wetland habitat. Permanent impacts on willow riparian and seasonal wetland habitat shall be compensated through enhancement of willow riparian habitat/seasonal wetlands at a minimum 2:1 ratio (enhancement: impact) or creation of willow riparian habitat/seasonal wetlands at a minimum 1:1 ratio. Mitigation credits may be purchased from a CDFW and Regional Water Quality Control Board-approved mitigation bank if on-site mitigation is not feasible. • If EBMUD conducts mitigation through habitat enhancement or creation, a riparian and wetland mitigation plan shall be prepared that address the following parameters: – Baseline conditions within the mitigation site – Proposed mitigation site conditions – Mitigation methods (e.g., habitat creation or enhancement) – Planting plan – Methods for invasive weed control – Methods to establish the desired mitigation site conditions – Maintenance, including trash removal, invasive weed removal, and repair of any damage to the mitigation site – Adaptive management procedures – Monitoring methods • The enhanced or created riparian and wetland habitat shall meet the following success criteria: – Minimum of 70 percent vegetated cover with native willow riparian vegetation for willow riparian mitigation and native wetland vegetation for seasonal wetland mitigation	• Phase 1 • Phase 2	• SOWTP site	• EBMUD is responsible for defining and completing compensatory mitigation.	• EBMUD is responsible for verifying implementation.	• Prior to construction • Post-construction

	– Less than 3 percent invasive weed cover – Wetland hydrology and soil conditions in the compensatory wetland mitigation areas • Annual monitoring shall be conducted for the mitigation habitats and shall include surveys for native vegetation cover, photo documentation at defined photo-monitoring locations, and monitoring for invasive species and any other habitat stressors. Monitoring will be conducted for the first five years or until success criteria are met. • An annual report shall be submitted to CDFW by January 31st following the reporting year. The annual report shall provide the results of annual habitat monitoring, recommendations for any corrective actions needed to meet success criteria, and a description of any corrective actions taken in the previous reporting year.					
Impact BIO-3: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means	**Mitigation Measure BIO-2: Willow Riparian and Seasonal Wetland Habitat Protection and Restoration** • (Details listed in Impact BIO-2)	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2
Impact BIO-3: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	**Mitigation Measure BIO-3: Sensitive Natural Community Compensatory Mitigation** • (Details listed in Impact BIO-2)	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2
Impact BIO-5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	**Mitigation Measure BIO-2: Willow Riparian and Seasonal Wetland Habitat Protection and Restoration** • (Details listed in Impact BIO-2)	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2
Impact BIO-5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	**Mitigation Measure BIO-3: Sensitive Natural Community Compensatory Mitigation** • (Details listed in Impact BIO-2)	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2	• Details listed in Impact BIO-2
Cultural Resources						
Impact CUL-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	**Mitigation Measure CR-1: Archaeological and Tribal Monitoring** • During ground-disturbing construction activities of the Central North Aqueduct pipeline at the previously recorded site P-07-000068 and a 250-foot buffer from the site, a qualified archaeological and tribal monitor shall be present to inspect unexcavated sediments and soils for any sign of site P-07-000068 or other potential archaeological deposit. The archaeologist and tribal monitor shall notify EBMUD and its contractor of a discovery and EBMUD will direct its contractor to stop work in the vicinity of a discovery. The archaeologist will follow all regulations for the identification, evaluation, and recovery of any archaeological resources that cannot be avoided. • During ground-disturbing construction activities of the Central North Aqueduct pipeline in areas with moderate sensitivity for deeply buried pre-contact archaeological resources (e.g., Bay Terrace alluvium), a qualified archaeological and tribal monitor shall be present to inspect unexcavated sediments and soils for any sign of potential archaeological deposits bi-weekly (two times per week). The archaeologist and tribal monitor shall notify EBMUD and its contractor of a discovery and EBMUD will direct its contractor to stop work in the vicinity of a discovery. If the archaeologist has observed excavation to final depth in sufficient areas to adequately characterize that the Project area and the underlying sediments appear disturbed or other evidence to suggest that archaeological and tribal cultural deposits are highly unlikely, the qualified archaeologist may recommend, in consultation with EBMUD, a switch to periodic (spot-check) monitoring or cease inspections entirely. • If during bi-weekly inspections, the archaeologist identifies 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 EBMUD. The Archaeological Monitoring Plan may include increased frequency of periodic archaeological inspections, full-time archaeological construction monitoring, or presence/absence testing in areas of	• Phase 2	• Central North Aqueduct pipeline	• EBMUD is responsible for hiring a qualified archaeologist and tribal monitor to conduct monitoring per the measure.	• EBMUD is responsible for verifying implementation.	• Construction

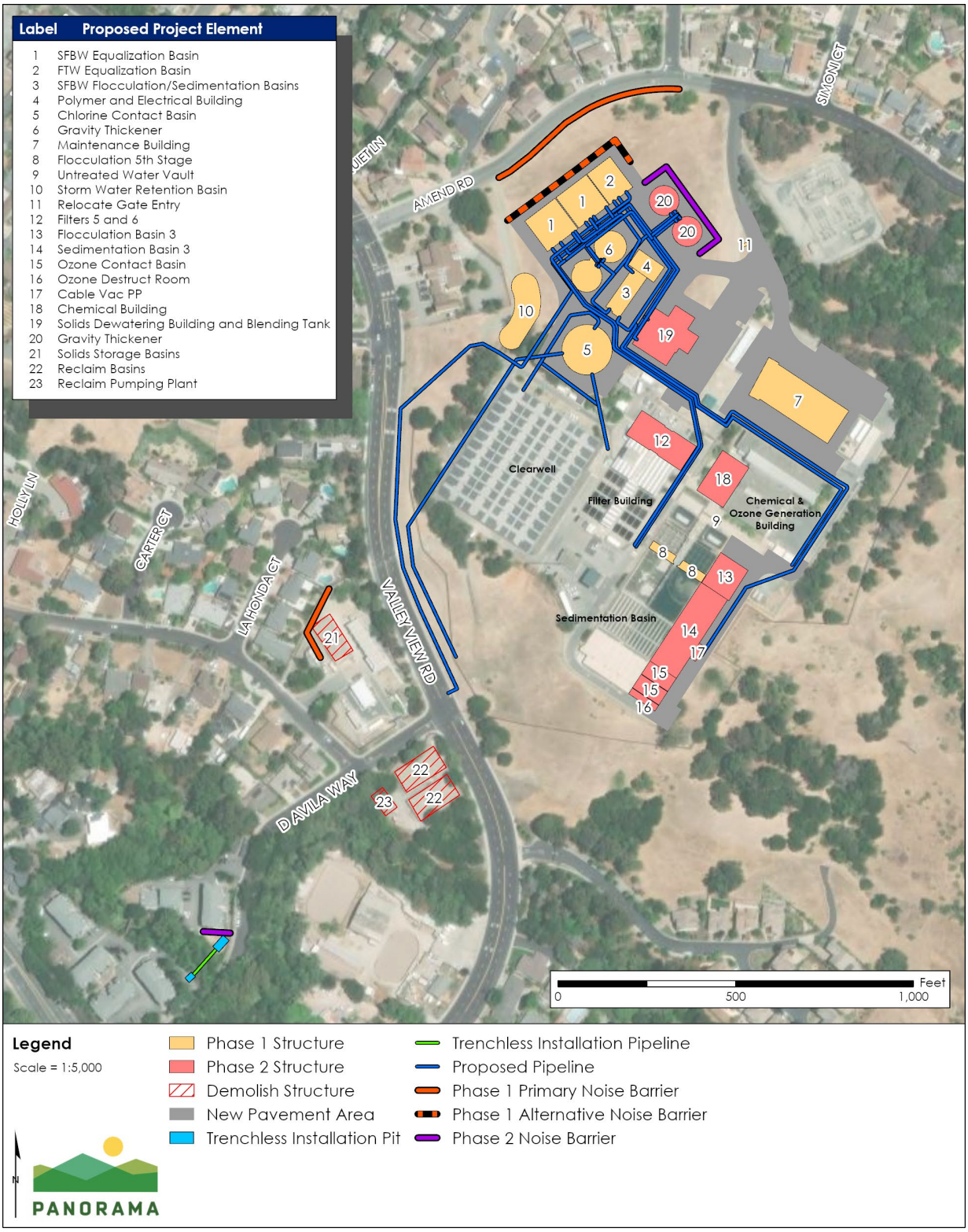
	heightened archaeological sensitivity. The archaeologist will follow all regulations for the identification, evaluation, and recovery of any archaeological resources that cannot be avoided.					
	Geology and Soils					
Impact GEO-5: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	**Mitigation Measure GEO-1: Paleontological Resource Monitoring Plan** • During detailed design of the facilities, a professional paleontologist will be retained to prepare and implement a paleontological resource monitoring plan (PRMP), which will define paleontological resource monitoring locations, timing, and methodology. The location and extent of paleontological resource monitoring will reflect the locations where Project excavations are anticipated to impact the Orinda Formation based on design drawings, depth to bedrock, and locations of historic fills, as interpreted from geotechnical data. The PRMP will include procedures to adjust paleontological monitoring frequency and locations based on field monitoring results. The PRMP will also define protocols for any discoveries of paleontological resources including: 1. Notification procedures. 2. Procedures for temporarily diverting or halting construction to salvage fossils. 3. Methods to salvage fossils. 4. Methods to prepare the fossils for curation. 5. Locations of approved repositories where fossil discoveries will be offered for curation. • Before the start of ground-disturbing activities, a professional paleontologist will be retained to implement the PRMP.	• Phase 1 • Phase 2	• SOWTP site • Central North Aqueduct pipeline	• EBMUD is responsible for hiring a qualified paleontologist to prepare a PRMP and conducting monitoring.	• EBMUD is responsible for reviewing and approving the plan.	• Prior to construction • Construction
	Noise					
Impact NOI-1: Result in the 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.	**Mitigation Measure NOI-1. Phase 1 Temporary Noise Barriers.** • EBMUD shall erect a 16-foot-tall temporary noise barrier on EBMUD property between the active Phase 1 construction area and residential receptors on Amend Road throughout the duration of Phase 1 construction. The noise barrier will be STC rated 25 or higher and specific to sound attenuation applications. During some periods of construction, the noise barrier may be moved or dismantled temporarily to accommodate the Project construction area, and EBMUD shall schedule only mobile equipment activities to occur during periods when the noise barrier is being moved. EBMUD shall also erect a 12-foot tall noise barrier with an STC rating of 25 or higher between the Phase 1 demolition area and adjacent residents north of the demolition area.	• Phase 1	• SOWTP site (see Figure 1)	• Contractor is responsible for installing noise barriers.	• EBMUD is responsible for verifying implementation.	• Construction
Impact NOI-1: Result in the 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.	**Mitigation Measure NOI-2. Phase 2 Temporary Noise Barriers.** • EBMUD shall erect a 12-foot-tall temporary noise barrier between the Phase 2 gravity thickeners and sensitive receptors on Amend Road and a separate 12-foot-tall temporary noise barrier between the Central North Aqueduct pipeline jack and bore location and the D'Avila Woods Apartment buildings. The temporary noise barrier will be STC rated 25 or higher and specific to sound attenuation applications. To be effective, the noise barriers will be installed to block the line of sight between the construction activity and residential receptors.	• Phase 2	• SOWTP site • Central North Aqueduct jack and bore location (See Figure 1)	• Contractor is responsible for installing noise barriers.	• EBMUD is responsible for verifying implementation.	• Construction
Impact NOI-1: Result in the 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.	**Mitigation Measure NOI-3. Limit Construction Hours in Contra Costa County.** • Where feasible, EBMUD shall limit excavation and grading activities within 500 feet of residential and commercial occupancies within Contra Costa County to weekdays within the County approved construction hours of 7:30 a.m. to 5:30 p.m.	• Phase 2	• Central North Aqueduct pipeline	• Contractor is responsible for implementing the measure.	• EBMUD is responsible for verifying implementation.	• Construction
Impact NOI-1: Result in the 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.	**Mitigation Measure NOI-4. Off-site Accommodation for Affected Nighttime Receptors.** • EBMUD shall notify residents, who could be affected by nighttime (10 p.m. to 7 a.m.) construction of the Central North Aqueduct pipeline at busy intersections or at tie-in locations, at least 10 days in advance. Residences within 660 feet of these nighttime	• Phase 2	• Central North Aqueduct pipeline nighttime	• EBMUD is responsible for notifying property owners and	• EBMUD is responsible for verifying implementation.	• Prior to nighttime construction

	construction work areas may request alternative lodging for the night(s) of the potential nighttime construction from EBMUD; alternative lodging to be provided will consist of a standard room at a hotel within 5 miles of the affected residence or as close as feasible. Alternative lodging will be provided and approved by EBMUD the day before the known nighttime pipeline construction is planned, or earlier, based on the types of construction activities that may occur during the nighttime hours (10 p.m. to 7 a.m.). This measure will be implemented only if nighttime construction at busy intersections or at tie-ins is to occur for the Central North Aqueduct pipeline.		construction locations	providing alternative lodging if needed.		
	Transportation					
Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	**Mitigation Measure TRA-1. Minimize Impacts on Transit Service** • At least 60 days prior to construction activities involving temporary roadway centerline adjustment, rerouting of any bus line(s), or temporary closure and relocation of any bus stop, EBMUD shall coordinate with AC Transit. Roadway centerline adjustment and transit rerouting plans shall be reviewed and approved by the relevant city or county and reviewed by AC Transit prior to construction and included in the Project's Traffic Control Plan. EBMUD shall coordinate with AC Transit, to temporarily relocate any bus stops that are affected by construction of the Central North Aqueduct pipeline. Any parking obstruction, sidewalk obstruction, travel lane obstruction, or other accommodation required for the temporary bus stop shall be reviewed and approved by AC Transit prior to construction and included in the Project's Traffic Control Plan.	• Phase 2	• Central North Aqueduct pipeline	• EBMUD is responsible for coordinating with AC Transit and implementing the measure.	• EBMUD is responsible for verifying implementation.	• Prior to transit stop relocation or rerouting of bus lines
Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	**Mitigation Measure TRA-2: Minimize Impacts of Heavy Truck Traffic at SOWTP** • Use of soil and demolition off-haul trucks to and from the SOWTP will be restricted to between the hours of 9:00 a.m. to 4:00 p.m. • Soil and demolition off-haul and large equipment delivery trucks on Valley View Road in front of schools will be limited to the hours of 9:00 a.m. to 3:00 p.m. • Concrete deliveries may begin as early as 6:00 a.m. • The required Traffic Control Plan shall include the following measures: – EBMUD's Contractor shall distribute written traffic safety requirements to all Contractor heavy construction vehicle drivers. All drivers shall provide signed acknowledgement of having read and understood all traffic safety requirements and consequences of non-compliance. – Written traffic safety requirements shall include: ▪ Construction work hours specifying when construction traffic would be allowed to access the SOWTP and staging areas. ▪ Construction haul routes and associated speed limits. ▪ Designated parking locations. – Contractor shall provide Project sticker or equivalent to drivers who have provided written acknowledgement of traffic safety requirements. – Project sticker shall be made available upon request by EBMUD during the construction contract period. – Contractor heavy construction vehicle drivers shall conform to designated construction hours, including no driving, queuing, idling or parking on local roadways outside of designated construction hours as outlined in written traffic safety requirements. – Contractor heavy construction vehicle drivers shall use only designated construction traffic haul routes. – Contractor shall provide Radar Speed Feedback Signs along Valley View Road and Amend Road for the entire Project duration (two, one in each direction of traffic on Valley View Road and Amend Road) to deter speeding by heavy construction vehicles on construction traffic routes. – Contractor heavy construction vehicle drivers shall comply with roadway traffic safety rules as outlined in written traffic safety requirements, including, but not limited to:	• Phase 1 • Phase 2	• SOWTP site	• Contractor is responsible for incorporating the measure into the Traffic Control Plan and implementing the measure.	• EBMUD is responsible for verifying implementation.	• Prior to Construction • Construction

	▪ Stoplight signals and stop signs. ▪ Roadway speed limits (reduced speeds in construction zones and near schools).					
Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	**Mitigation Measure TRA-3. Minimize Impacts of Heavy Traffic at Road 20** • Use of soil and demolition off-haul and large equipment delivery trucks on Road 20 in front of Helms Middle School will be limited to the hours of 9:00 a.m. to 3:00 p.m. • The required Traffic Control Plan shall include the following measures: – EBMUD's Contractor shall distribute written traffic safety requirements to all Contractor heavy construction vehicle drivers. All drivers shall provide signed acknowledgement of having read and understood all traffic safety requirements and consequences of non-compliance. – Written traffic safety requirements shall include: ▪ Construction work hours specifying when construction traffic would be allowed to access the work area at Road 20 ▪ Construction haul routes and associated speed limits. ▪ Designated parking locations. – Contractor shall provide a Project sticker or equivalent to drivers who have provided written acknowledgement of traffic safety requirements. – Project sticker shall be made available upon request by EBMUD during the construction contract period. – Contractor heavy construction vehicle drivers shall conform to designated construction hours, including no driving, queuing, idling or parking on local roadways outside of designated construction hours as outlined in written traffic safety requirements. – Contractor heavy construction vehicle drivers shall use only designated construction traffic haul routes. – Contractor shall provide Radar Speed Feedback Signs along Road 20 during construction on Road 20 (two, one in each direction of traffic on Road 20) to deter speeding by heavy construction vehicles on construction traffic routes. – Contractor heavy construction vehicle drivers shall comply with roadway traffic safety rules as outlined in written traffic safety requirements, including, but not limited to: ▪ Stoplight signals and stop signs. ▪ Roadway speed limits (reduced speeds in construction zones and near schools).	• Phase 2	• Central North Aqueduct	• Contractor is responsible for incorporating the measure into the Traffic Control Plan and implementing the measure.	• EBMUD is responsible for verifying implementation.	• Prior to Construction • Construction
Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	**Mitigation Measure TRA-4. Bicycle Safety** The following protocols shall be implemented to protect bicyclist safety during open trench construction in roadways: • Striped/designated bikeways (Class II) shall be avoided by construction staging and activities to the extent feasible. • Notices shall be posted 14 days prior to construction along roadways where open trench construction will occur. Notices shall include the following information: – Location of construction within the roadway. – Timing of construction in the area. – Detour routes for bicyclists where designated bike lanes will be impacted by construction. • Flaggers shall be trained to safely direct bicyclists around the work area without creating conflicts with pedestrians or vehicle traffic. • Any impacted bikeway shall be restriped and any physical demarcation of bikeways shall be replaced within 14 days following installation of permanent or temporary asphalt within the impacted roadways.	• Phase 2	• Central North Aqueduct pipeline	• EBMUD is responsible for designing the pipeline to avoid impacts on bikeways where feasible. • Contractor is responsible for posting notices, using flaggers, and repairs.	• EBMUD is responsible for verifying implementation.	• Detailed design • Construction • Post-construction

Impact TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	**Mitigation Measure TRA-5: Pedestrian Access** • Construction of the Central North Aqueduct pipeline shall be phased such that at least one crosswalk at each of the affected signalized intersections on San Pablo Dam Road, Valley View Road, El Portal, and Road 20 is accessible at any given time to the extent feasible. Pedestrian access plans shall be included in the Traffic Control Plan and reviewed and approved by the local agency with jurisdiction over the roadway.	• Phase 2	• Central North Aqueduct pipeline	• Contractor is responsible for including pedestrian access in the Traffic Control Plan and implementing the measure.	• EBMUD is responsible for verifying implementation.	• Prior to construction • Construction
Impact TRA-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	**Mitigation Measure TRA-2: Minimize Impacts of Heavy Truck Traffic at the SOWTP** • Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.
Impact TRA-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	**Mitigation Measure TRA-3: Minimize Impacts of Heavy Truck Traffic at Road 20** • Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.
Impact TRA-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	**Mitigation Measure TRA-4. Bicycle Safety** • Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.
Impact TRA-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	**Mitigation Measure TRA-5: Pedestrian Access** • Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.	• Details listed in Impact TRA-1.
Tribal Cultural Resources						
Impact TCR-1: 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 define in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe.	**Mitigation Measure CR-1: Archaeological and Tribal Monitoring** • During ground-disturbing construction activities of the Central North Aqueduct pipeline at the previously recorded site P-07-000068 and a 250-foot buffer from the site, a qualified archaeological and tribal monitor shall be present to inspect unexcavated sediments and soils for any sign of site P-07-000068 or other potential archaeological deposit. The archaeologist and tribal monitor shall notify EBMUD and its contractor of a discovery and EBMUD will direct its contractor to stop work in the vicinity of a discovery. The archaeologist will follow all regulations for the identification, evaluation, and recovery of any archaeological resources that cannot be avoided. • During ground-disturbing construction activities of the Central North Aqueduct pipeline in areas with moderate sensitivity for deeply buried pre-contact archaeological resources (e.g., Bay Terrace alluvium), a qualified archaeological and tribal monitor shall be present to inspect unexcavated sediments and soils for any sign of potential archaeological deposits bi-weekly (two times per week). The archaeologist and tribal monitor shall notify EBMUD and its contractor of a discovery and EBMUD will direct its contractor to stop work in the vicinity of a discovery. If the archaeologist has observed excavation to final depth in sufficient areas to adequately characterize that the Project area and the underlying sediments appear disturbed or other evidence to suggest that archaeological and tribal cultural deposits are highly unlikely, the qualified archaeologist may recommend, in consultation with EBMUD, a switch to periodic (spot-check) monitoring or cease inspections entirely. • If during bi-weekly inspections, the archaeologist identifies 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 EBMUD. The Archaeological Monitoring Plan may include increased frequency of periodic archaeological inspections, full-time archaeological construction monitoring, or presence/absence testing in areas of heightened archaeological sensitivity. The archaeologist will follow all regulations for the identification, evaluation, and recovery of any archaeological resources that cannot be avoided.	• Phase 2	• Central North Aqueduct pipeline	• EBMUD is responsible for hiring a qualified archaeologist and tribal monitor to conduct monitoring.	• EBMUD is responsible for verifying implementation.	• Construction

Figure 1 Location of Phase 1 and Phase 2 Noise Barriers



APPENDIX C – EBMUD PRACTICES AND PROCEDURES MONITORING AND REPORTING PLAN, MITIGATION MONITORING AND REPORTING PROGRAM

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