Public Review Initial Study and

Mitigated Negative Declaration

CITY OF SOUTH SAN FRANCISCO ORANGE MEMORIAL PARK WATER CAPTURE PROJECT

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ACRONYMS AND ABBREVIATIONS

AAQS	Ambient Air Quality Standard
ABAG	Association of Bay Area Governments
AB	Assembly Bill
ADT	Average Daily Trip
AIA	Airport Influence Area
ALUCP	Airport Land Use Compatibility Plan
APE	Area of Potential Effect
APCO	Air Pollution Control Officer
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
bgs	below ground surface
BMP	Best Management Practices
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Office Association
CARB	California Air Resources Board
CBC	California Building Code
C/CAG	City/County Association of Governments of San Mateo County
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFC	Chloroflurocarbons
cfs	cubic feet per second
CGS	California Geological Survey
CHRIS	California Historical Resources Information System
CH4	Methane Gas
CHP	California Highway Patrol
CIP	Capital Improvement Program
CMP	Congestion Management Plan

CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
CRHR	California Register Historical Resources
CRPR	California Rare Plant Rank
dbh	diameter breast height
DDE	dichlorodiphenyldichloroethylene
DDT	dichlorodiphenyltrichloroethane
District	San Mateo County Flood Control District
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EOP	Emergency Operation Plan
EPA	Environmental Protection Agency
ESL	Environmental Screening Levels
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Authority
GHG	Greenhouse Gas
GSRD	Gross Solid Removal Device
HCFC	Hydrochlorofluorocarbons
HCP	Habitat Conservation Plan
HMCP	Hazardous Materials Contingency Plan
IPAC	Information Planning and Consultation System
IS	Initial Study
IS/MND	Initial Study/Mitigated Negative Declaration
JPB	Joint Powers Board
LCFS	Low Carbon Fuel Standard
LRA	Local Responsibility Area
MGD	Million Gallons per Day
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Plan

MRP	Municipal Regional Stormwater Permit
MS4	Municipal Separate Storm Sewer Systems
MTC	Metropolitan Transportation Commission
MT CO_2e	metric tons of carbon dioxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge and Elimination System
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
O_3	Ozone
OES	Office of Emergency Services
OSHA	Occupational Safety and Health Administration
Pb	Lead
PCB	Polychlorinated Biphenyls
PCE	Peninsula Clean Energy
PG&E	Pacific Gas and Electric
PM_{10}	respirable particulate matter
$PM_{2.5}$	fine particulate matter
ppb	parts per billion
PRC	Public Resources Code
RECP	Regional Emergency Coordination Plan
RTP/SCS	Regional Transportation Plan/Sustainable Community Strategy
RWQCB	Regional Water Quality Control Board
SFBAAB	San Francisco Bay Area Air Basin
SFO	San Francisco Airport
SFPUC	San Francisco Public Utility Commission
SF RWS	San Francisco Regional Water System
SMCTA	San Mateo County Transportation Authority
SMCWPPP	San Mateo Countywide Water Pollution Prevention Program

SMP	Site Management Plan
SO_2	sulfur dioxide
SRP	Stormwater Resource Plan
SSC	Species of Special Concern
SSFFD	South San Francisco Fire Department
SSFMC	South San Francisco Municipal Code
SSFPD	South San Francisco Police Department
SSFUSD	South San Francisco Unified School District
SSFWQCP	South San Francisco Water Quality Control Plant
SSMP	Sewer System Management Plan
SWPPP	Stormwater Pollution Prevention Program
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TDM	Travel Demand Management
TMDL	Total Maximum Discharge Load
TNW	Traditional Navigable Water
TTLC	Total Threshold Limit Concentrations
USACE	U.S. Army Corps of Engineers
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UV	Ultraviolet
VHFHSZ	Very High Fire Hazard Severity Zone
VdB	Vibration Decibels
VMT	Vehicle Miles Travelled
VOC	Volatile Organic Compound
WMP	Waste Management Plan

1.0 INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) identifies and analyzes the potential environmental impacts of the Orange Memorial Park Water Capture Project (proposed project). The information and analysis presented in this document is organized in accordance with the order of the California Environmental Quality Act (CEQA) Guidelines Appendix G, CEQA Environmental Checklist. If the analysis provided in this document identifies potentially significant environmental effects of the project, required project mitigation measures are identified. The required mitigation measures would be implemented in conjunction with the project, as required by CEQA as project conditions of approval. The City would adopt findings and a Mitigation Monitoring and Reporting Program (MMRP) for the project in conjunction with project approval.

The City of South San Francisco adopted their General Plan and associated Environmental Impact Report (EIR) in October 1999. The General Plan EIR is a Program EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations, Sections 15000 et seq.), and includes an examination of the potential wide-ranging effects resulting from buildout of General Plan land use designations. Measures to mitigate the significant adverse project and cumulative impacts associated with potential General Plan buildout were identified in the General Plan EIR.

The environmental setting of each section of this IS/MND is based on information in the City's General Plan and Program EIR, and multiple site visits conducted by Wood Environment & Infrastructure Solutions, Inc. staff. Several project-specific technical reports used in the preparation of this IS/MND have been prepared by Wood Environment & Infrastructure Solutions, Inc., Cotton, Shires and Associates, Inc., and Fugro Consultants, Inc. They are included in associated appendices.

Document Organization

This IS/MND is organized as follows:

Chapter 1: Introduction provides an introduction to the environmental review process. It describes the purpose and organization of this document and presents a summary of findings.

Chapter 2: Project Description and Background describes the purpose of and need for the project, identifies project goals and objectives, and provides a detailed description of the project.

Chapter 3: Environmental Checklist presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist and determines if project actions would result in no impact, a less than significant impact, a less than significant impact with mitigation incorporated, or a potentially significant impact. If any impacts were determined to be potentially significant and not feasibly mitigated to less than significant, an EIR would be required. None of the proposed project impacts were determined to be significant, however, after implementation of feasible mitigation measures.

Chapter 4: References lists the references used in preparation of this IS/MND.

Chapter 5: List of Preparers identifies report preparers.

2.0 PROJECT DESCRIPTION

1. Project Title:

Orange Memorial Park Water Capture Project

2. Lead Agency Name and Address:

City of South San Francisco
Engineering Division
315 Maple Avenue
South San Francisco, CA 94083

3. Contact Person and Phone Number:

Bianca Lui, P.E., QSD/P, Associate Engineer/Project Manager (650) 829-6697

4. Project Location:

The proposed Orange Memorial Park Water Capture Project (Project) is located along Colma Creek within the southern half of Orange Memorial Park (Park), a 28-acre public park located at 1 West Orange Avenue, in the City of South San Francisco, California (Figure 1). The City of South San Francisco (City) lies within San Mateo County in the San Francisco Bay Area. The City is located approximately three miles north of San Francisco International Airport and the City of San Bruno in a small valley south of Daly City, Colma and San Bruno Mountain. The City is located approximately six miles east of Pacifica and the hills of the Coast Range, and west of the waters of San Francisco Bay.

The Project would be entirely confined within the Park, which supports a range of recreational facilities including two formal ball fields. The limits of the proposed Project water capture facilities would extend approximately 1,000 feet from the upstream and western end of Colma Creek to the southeast corner of the Park near the two ballfields located along West Orange Avenue (Figure 2).

5. Project Sponsor's Name and Address:

City of South San Francisco
City Manager
400 Grand Avenue
South San Francisco, CA 94080

6. General Plan Designation:

The proposed Project site, including the Colma Creek channel, is designated for "Park and Recreation" land uses in the City of South San Francisco General Plan (1999). Land use to the north of the Project site is designated as "Low Density Residential". Land uses to the east are designated as "Medium Density Residential" and "Low Density Residential". Land uses to the south of the Project site are designated as "Park and Recreation" and "Medium Density Residential". Land use to the west consists of "High Density Residential".

7. Zoning:

The Project site and Colma Creek channel are zoned as "PR – Parks and Recreation" pursuant to the City of South San Francisco Zoning Map and Ordinance.

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Project Site and Park Facilities

FIGURE 1

8. Project Background:

Several waterbodies in San Mateo County have been identified as "impaired" as not meeting state or federal water quality standards, and are listed in Section 303(d) of the Clean Water Act (CWA). A water body is included on the Section 303(d) list when the receiving water does not meet applicable water quality standards listed in the Basin Plan (Water Quality Control Plan) and does not support the beneficial uses associated with the applicable water quality standard. Once included on the 303(d) list, the water body is subject to the development of a Total Maximum Discharge Load (TMDL), a plan for restoring impaired waters that identifies the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards.

The San Francisco Bay Regional Water Quality Control Board (RWQCB) has developed TMDLs for several pollutants originating from urban and stormwater runoff in the watersheds throughout San Mateo County. Colma Creek is among the impaired water bodies with TMDLs for Polychlorinated Biphenyl's (PCBs), mercury, and trash reductions. In accordance with the terms of the Municipal Regional Stormwater Permit (MRP), Colma Creek has been identified for water quality improvements in the San Mateo County Stormwater Resource Plan (SRP).

The San Francisco Bay RWQCB administers the MRP requirements and the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP). The SMCWPPP is implemented through a partnership of the City/County Association of Governments (C/CAG) of San Mateo County, who share the responsibility of complying with the MRP requirements. These requirements focus on the implementation of green infrastructure and stormwater planning, and PCB/mercury and trash load reductions.

Municipal Regional Stormwater Permit

In 2015 the San Francisco RWQCB issued the county-wide MRP (CAS612008) to regulate stormwater discharges in San Mateo County. The MRP requires San Mateo County permittees (the County and its 20 cities) to reduce PCBs by 370 grams per year by June 30, 2020. A minimum 15 grams per year of this total must be achieved via green infrastructure, such as water capture facility improvements. San Mateo County permittees need to demonstrate cumulative mercury reduction by six grams per year by implementing green infrastructure improvements by June 30, 2020. These reduction rates are required by the MRP to achieve compliance with mercury and the PCBs TMDLs for San Francisco Bay. San Mateo County permittees are also required to reduce trash discharges to the Bay from municipal storm drain systems. Under the current MRP term, an 80 percent reduction is required in 2019 and zero impact on receiving waters from trash by 2022. According to the MRP, these reductions would be accomplished through the implementation of stormwater capture, treatment, and infiltration projects and associated green infrastructure improvements.

Stormwater Resource Plan

Under Senate Bill 985, a Stormwater Resource Plan (SRP) is required for municipalities to receive funding for stormwater and dry weather runoff capture projects. The San Mateo County SRP is a comprehensive water resource planning and stormwater runoff management document developed by the C/CAG and its SMCWPPP. It identifies and

prioritizes opportunities to utilize stormwater as a resource in San Mateo County through a detailed analysis of watershed processes, surface and groundwater resources, public and stakeholder input, and an analysis of multiple benefits that can be achieved through strategically planned stormwater management projects. These projects are designed to capture and manage stormwater more sustainably; reduce flooding and pollution associated with runoff; improve biological function of plants, soils, and natural infrastructure; and provide community benefits.

The proposed Project was identified in the San Mateo County SRP as a high-priority regional project that can capture water from a large multi-jurisdictional drainage area. The Project has the potential to co-locate stormwater diversion from Colma Creek and storage and treatment in Orange Memorial Park with other planned and future capital improvement projects (CIP) in the Park, while also providing community benefits. It is one of 22 project concepts developed in conjunction with the San Mateo County SRP and the C/CAG agencies, three of which are large-scale regional project concepts and the other 19 smaller green streets or parking lots. The Project was also one of four concepts recommended by the State Water Resources Control Board (SWRCB) to receive Proposition 1 stormwater grant funding.

Colma Creek Channel

Colma Creek is a perennial drainage that flows for approximately 8 miles from its headwaters in San Bruno Mountain State and County Park. It runs through the cities of Daly City, Colma, and South San Francisco where it eventually discharges into San Francisco Bay. A 5.4-mile long segment of Colma Creek consists of a concrete-lined drainage channel with varying channel dimensions. Portions of the channel include earthen channels, channels with concrete walls and earthen beds, and fully concrete lined channels with box culverts. The 5.4-mile long Colma Creek drainage channel is owned and operated by the San Mateo County Flood Control District (District), a Countywide Special District created to finance flood control projects in the region.

Colma Creek has a history of persistent flooding. The industrial area of South San Francisco near Colma Creek was constructed on a historic flood plain, making the businesses and buildings in this area susceptible to flooding. As a result, in 1964 the District established the Colma Creek Flood Control Zone that extends from San Francisco Bay to the City of Daly City and provides flood control protection for the surrounding region. In 1974, the District subsequently established the Colma Creek Flood Control Project that involved the completion of several channel improvements including the construction of vertical concrete channel walls, transition structures between channel segments, and bridge crossings. A segment of the Colma Creek drainage channel runs through Orange Memorial Park. The reach of the Colma Creek drainage channel that bisects the Park consists of vertical and trapezoidal-shaped concrete channel walls and bed.

9. Project Goals and Objectives:

The primary goals of this regional water capture project are summarized below.

- Achieve load reductions in discharges of PCBs and mercury to San Francisco Bay for compliance with TMDL requirements;
- Reduce trash discharges to the Bay; and

- Fulfill the Cooperative Implementation Agreement with Caltrans (project funder) with optimal cost effectiveness.

Additional goals and objectives also include:

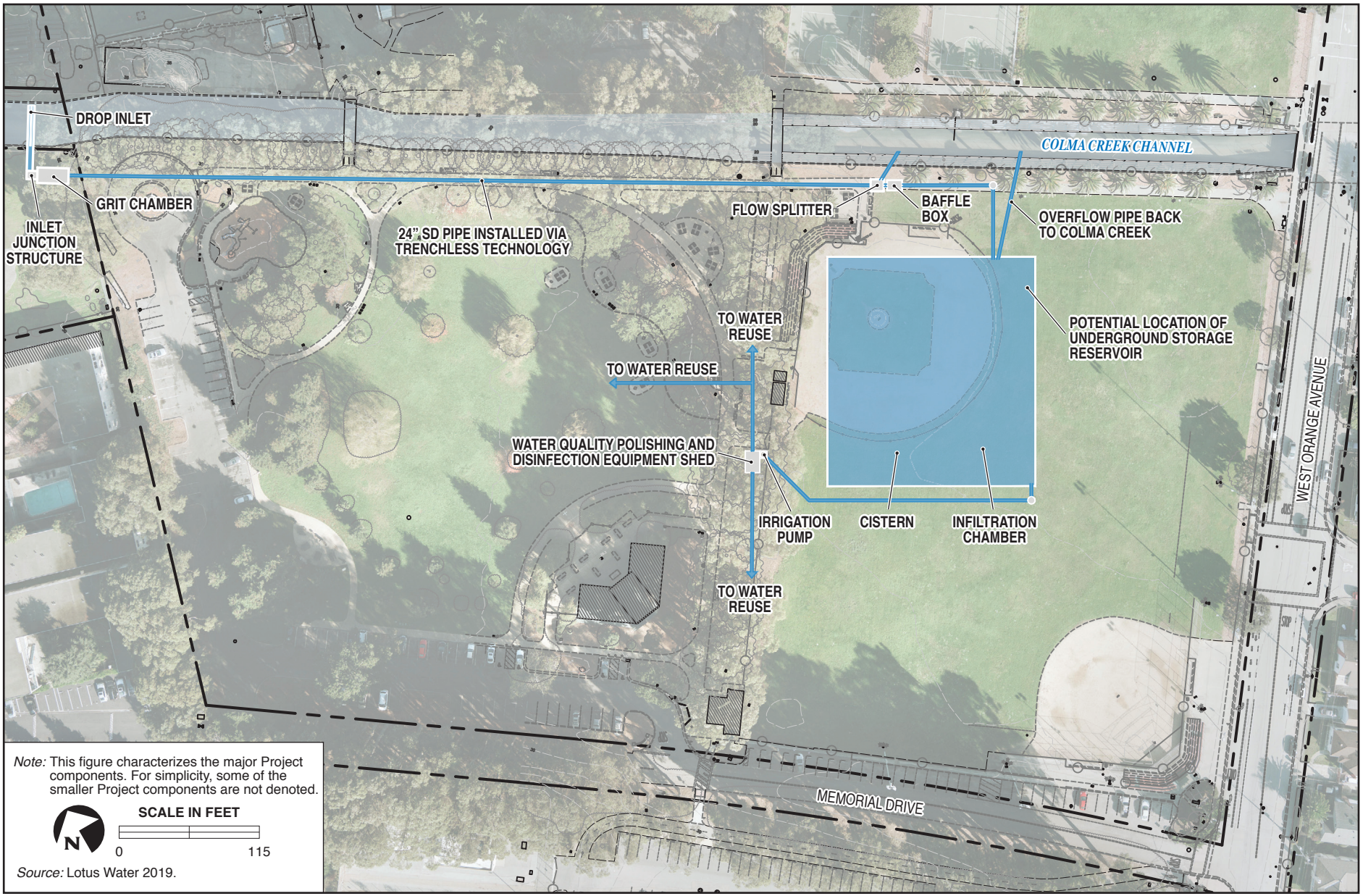
- Implement green infrastructure improvements to capture and treat flows from Colma Creek, and utilize treated water for beneficial uses such as irrigation and infiltration;
- Alleviate localized flooding in lower reaches of Colma Creek;
- Support the vision of the Orange Memorial Park Master Plan; and
- Implement solutions that minimize long-term operations and maintenance requirements and short-term construction impacts to park users.

10. Description of Project:

The Project would provide water quality improvements to meet the National Pollutant Discharge and Elimination System (NPDES) requirements of the San Francisco Bay MRP. The MRP governs stormwater discharges to San Francisco Bay from the City of South San Francisco and 21 other co-permittees in San Mateo County. The Project is designed to address multiple water quality targets outlined in the MRP. These include a reduction in pollutant discharges of PCBs and mercury to San Francisco Bay to comply with TMDL requirements, as well as trash discharge reductions under the MRP requirements.

The Project would include construction and operation of a water capture facility through the installation of a drop inlet, diversion channel, and pretreament structure (trash screen and sediment removal chamber) in the upper and western end of the Colma Creek channel and Park boundary (Figure 2). Pretreated water would then enter into a diversion pipe leading to an underground stormwater storage reservoir in the southeastern corner of the Park. A portion of the storage would function as a cistern holding water for eventual non-potable irrigation use in and around the Park, and the remainder would function as an infiltration chamber. These storage facilities would be constructed underneath a portion of the Park's two existing ballfields. When storage capacity is exceeded, treated overflow would be discharged back into the channel. This regional Project would have multiple benefits in addition to water quality improvements, including reducing localized flooding and reusing treated water for irrigation and groundwater recharge. The Project would capture and treat 8 to 16 percent of the annual drainage from approximately 6,500 acres of land in the City of South San Francisco, Town of Colma, the City of Daly City, and a portion of unincorporated San Mateo County.

Following construction of the proposed Project, the open picnic areas would be graded and restored and the two ballfields would be restored with new turf. Also, a separate and subsequent project would be completed by the City of South San Francisco Parks & Recreation Department, which involves additional improvements to the ballfields. These improvements include the installation of new dugouts, bleachers, lighting, and a scoreboard. These improvements are outlined to occur in two phases under the Orange Memorial Park Sports Field Renovation project summarized in the City's 2018-2019 Capital Improvement Program.



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Project Details

FIGURE 2

Caltrans is funding the Project through a Cooperative Implementation Agreement, and the City of South San Francisco is the Lead Agency hosting the Project on its land within Orange Memorial Park.

Proposed Design for Stormwater Capture and Diversion

The proposed Project would capture and divert water flows from Colma Creek to new water quality facilities that would be constructed beneath the two existing ballfields for treatment and reuse of surface water to help meet local irrigation demands (Figure 2). Flows from Colma Creek channel would be diverted into a drop inlet that would route flows into a pretreatment structure (trash screen, baffle, and sediment removal chamber) that would remove trash, floatables and settleables. Water would then flow south and east of the channel into a 24-inch storm drain pipe. The diversion and pretreatment structures would be installed approximately 10 feet underground and parallel to the Colma Creek channel in the northeast corner of a City-owned lot, adjacent to and west of the Park, that has not yet been developed and is fenced off to public access. The pretreament structure is designed to screen out trash down to five millimeters, capture debris to prevent the downstream diversion pipe from clogging, use a baffle to hold back oil and grease, and settle out sediment to protect the downstream water treatment and infiltration systems (Figure 3).

The diversion pipe would run east to a flow splitter located underneath a plaza area just north of the baseball diamond. The diversion pipe would have an initial depth of approximately 11 feet below the ground surface (bgs) leaving the pretreatment structure, and it would gradually decrease in depth relative to ground surface in order to maintain a gravity-fed diversion (i.e. no pump station). As the diversion pipe reaches the flow splitter it would be about 7 feet bgs. The treatment systems would be designed to treat 10 cubic feet per second (cfs) of diverted water flows up to a maximum storage capacity of up to 7.5 acre-feet. Capacity in the subsurface reservoir is restored through non-potable irrigation use and infiltration with a 0.5-inch per hour design drawdown rate. The combination of these facilities is designed to effectively remove PCBs and mercury. Once storage in the cistern and infiltration chamber is full, excess pretreated water flow would discharge from the flow splitter back to Colma Creek via an overflow weir and pipe.

The top of the infiltration chamber and cistern would be approximately 6 to 8 feet deep beneath the ballfields. The total storage and treatment capacity of the infiltration chamber and cistern would potentially vary as engineering and design plans are finalized. Approximately 80 percent of the underground storage reservoir would contain an infiltration chamber for groundwater recharge, and the other 20 percent would contain a cistern to store water for irrigation. Currently, the system would have approximately 4 acre-feet (1,300,000 gallons) of storage capacity with a 1-acre footprint. If additional funding is obtained, the system could be enlarged to have up to approximately 7.5 acre-feet (2,300,000 gallons) storage capacity with a maximum 2.5-acre footprint. Both underground storage reservoir systems are described below.

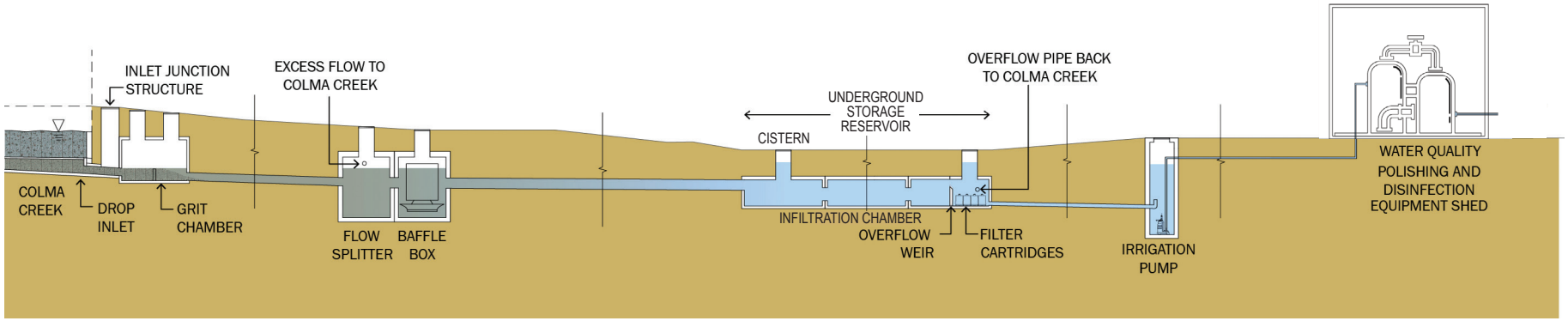
4 Acre-Feet Cistern/Infiltration Chamber Storage System

The smaller storage reservoir would underlie approximately one acre of the two ballfields located south of Colma Creek and provide 4 acre-feet of storage capacity. A 0.2-acre portion of the storage reservoir would be used as an underground cistern (water storage tank) to store water exclusively for irrigation, and an 0.8-acre portion of the reservoir would be an infiltration chamber to recharge groundwater (resulting in a 1.0-acre footprint). A maximum of 15 cfs of stormwater would be diverted to the storage reservoir under the ballfields. Once storage is full, pretreated flows would be discharged from the flow splitter back to Colma Creek.

Once operational, the system would provide treatment to an estimated 320 acre-feet of stormwater runoff. Infiltration and non-potable use would effectively provide 100 percent water quality treatment to those flows. Overflow from the storage system routed through the filtration chamber would remove approximately 70 percent of sediment. Since both mercury and PCBs are sediment associated, filtered flows would remove about 70 percent of those constituents as well. In addition to reducing the transport of mercury, PCBs, and trash, the proposed Project would also help alleviate local flooding in the surrounding neighborhood and recharge the groundwater.

7.5 Acre-Feet Cistern/Infiltration Chamber Storage System

A larger system would almost double the treatment capacity of the project. The largest system conceptualized would underlie 2.5 acres of the two ballfields and have 7.5 acre-feet of storage capacity (and similar cistern and infiltration chamber portions being dedicated for irrigation and groundwater recharge). As a larger system, it would be designed to treat up to 30 cfs of stormwater diverted through the underground storage reservoir. The larger system would potentially also include the installation of a gross solids removal device (GSRD) complex. This system would contain similar storage and treatment elements as the smaller system, but at a larger scale.



Disclaimer: Profile schematic is not to scale.

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Orange Memorial Park
Water Capture Profile Diagram

FIGURE 3

Below is a summary of the projected performance of the Project based on the volume of surface water treated (acre-feet), sediment removed (tons), and PCB and mercury reductions (g). It summarizes the two underground storage reservoir systems: the 3.0 acre-feet cistern/infiltration chamber system; and the 7.5 acre-feet cistern/infiltration chamber system.

Table 1. Summary of Performance for the Two Proposed Cistern/Infiltration Systems

Two Proposed Cistern/Infiltration Chamber Systems	Volume (acre-feet)		Sediment (tons)		PCB (g)		Hg (g)	
	4,003		1,105		106		354	
	Volume Treated	%	Sediment Removed	%	PCBs Removed	%	Hg Removed	%
3.0 Acre-Feet Cistern/Infiltration Chamber System	322	8.0%	55.7	5.0%	5.14	4.8%	15.5	4.4%
7.5 Acre-Feet Cistern/Infiltration Chamber System	564	14.1%	101	9.1%	10.2	9.5%	30.6	8.6%

Source: Lotus Water 2018.

After pretreatment and storage in the cistern, water would be pumped from the cistern on an as-needed basis for additional carbon filtration and ultraviolet (UV) disinfection. The additional filtration and UV disinfection would occur inside a water quality polishing and disinfection shed before being distributed throughout the Park and along a portion of Centennial Trail to satisfy irrigation demands. The dedicated equipment shed would measure approximately 15 feet by 20 feet and one-story high would house the carbon and UV treatment and distribution equipment and a control panel (Figure 3). The irrigation pump and equipment shed would be located along the western boundary of the ballfields and to the northeast of the large covered picnic area.

Installation of the pretreatment structure and diversion pipe near the open picnic area would involve excavation and trenching that would occur up to one month. Excavation and installation of the underground storage reservoir would require the temporary closure of the baseball fields for between 9 to 12 months. During construction, the two ballfields would be secured with construction fencing and closed to the public. Construction of the entire proposed Project is anticipated to last 12 to 18 months.

11. Project Construction and Schedule:

Project construction would involve mobilization, clearing, excavation, ground disturbance, and installation of water capture and treatment structures; heavy equipment operation; staging areas for equipment parking and material storage; and truck traffic on haul routes. Project implementation and phasing schedule is summarized below.

Grading and Ground Disturbance

The proposed Project would involve mobilization and clearing and grubbing (removing parts of the ballfield amenities and re-routing any existing irrigation piping). It would also involve excavation and trenching activities associated with the construction of the water infiltration, cistern, storage, and reuse systems. Excavation would encompass approximately 1.0 to 2.5 acres (maximum scenario) beneath the two ballfields, not including the excavation for the drop inlet and pretreatment structure near the western

end of the Park, which would require excavation. The diversion pipe would be trenched through the open picnic area closest to Colma Creek. Most excavation would be needed to install the underground storage reservoir (i.e. infiltration chamber and cistern system) approximately 6 to 8 feet bgs of the two ballfields. Dewatering is unlikely during installation of the underground storage reservoir, as groundwater was encountered at a depth of 18 feet bgs in the ballfields (Cotton, Shires and Associates 2018). If dewatering were necessary, this water would be discharged into the Colma Creek Channel.

Given the amount of soils that would be excavated for the underground storage reservoir, excavated materials would be managed off site. Also, depending on the cistern/infiltration chamber storage system selected during final design, 4,800 to 12,000 cubic yards of soil would potentially be exported during construction activities, requiring approximately 350 to 700 total truck trips, depending on the size of haul truck used (e.g., capacity of 10 cubic yards to 15 cubic yards). For soil removal, the City estimates up to 30 to 40 trucks trips would potentially occur per day to remove at most 600 cubic yards per day of soil over an approximate one month period. Export of excavated soil would also occur between 10:00 a.m. and 3:00 p.m. to avoid peak transportation periods.

Excess soils designated non-hazardous would be staged for future reuse at an abandoned and vacant parcel located in the northwest portion of the Park. The vacant parcel is accessed via Eucalyptus Avenue and Tennis Drive and contains approximately 2.5 acres for storage for staging construction equipment, materials, and excavated soil. Soils requiring offsite disposal would be transported and disposed pursuant to applicable laws and regulations. Other onsite Project activities would include installing and connecting the storm water diversion pipe needed to convey stormwater to and from the main underground storage reservoir and construction of necessary diversion, the pipe inlet structure, baffle box, flow splitter, and irrigation structures. These installations would involve the excavation and removal of an additional 1,000 cubic yards of soil near the western end of the Park and near the open picnic area. Approximately 3 to 5 truck trips would potentially occur per day to remove up to 100 cubic yards of soil per day over a one month period.

Construction Equipment and Staging Areas

The proposed Project would require the use of construction equipment such as excavators, bulldozers, backhoes, front-end loaders, single- or double-axle dump trucks, concrete ready-mix trucks, concrete pump trucks, flat-bed semi-tractor/trailers, and cranes. This equipment, along with other construction contractor vehicles, would be staged in the paved Park parking lots accessible from Memorial Drive or within the immediate vicinity of the two ballfields within the Park property. All work shall be conducted such that construction activities would not interfere unnecessarily with other areas of the Park. This equipment would be delivered and staged along Memorial Drive for approximately 12 months. Project materials and underground storage reservoir components would also be delivered to the site over a two-month period.

Memorial Drive and West Orange Avenue would not be closed or partially closed to traffic except for a lane closure adjacent to the Park on a few occasions. At a minimum, one-way traffic would also be maintained along Memorial Drive to ensure the multi-family residents can access the Park Lane Apartment complex. The construction contractor would make its

own arrangement for off-site storage of equipment and worker parking, if necessary. Currently, most construction contractor equipment and parking would occur on the City-owned and fenced off vacant parcel located in the northwest portion of the Park, and limited parking for contractor workers and equipment would occur along Memorial Drive near the southern portion of the Park near the two ballfields.

Construction Haul Routes

The proposed Project would require the delivery and removal of materials at the construction staging areas. Materials delivery and concrete trucks supporting construction activities at the Park would access the Project site either: via Interstate 280 (I-280) to Westborough Boulevard to El Camino Real to West Orange Avenue to Memorial Drive; or via Interstate 380 (I-380) to El Camino Real to West Orange Avenue to Memorial Drive. The parking spaces along Memorial Drive immediately adjacent to the two ballfields would potentially be temporarily displaced as they would be used to store a crane pad or as a location for construction equipment staging. Materials delivery trucks and other heavy construction equipment supporting the Project would access the construction staging areas via Memorial Drive. No improvements to Memorial Drive or other access roads are proposed following construction. However, if Memorial Drive or West Orange Avenue are damaged due to construction equipment and the haul trucks needed to remove the excavated soil, road repairs would be required.

Construction Schedule

Construction of the proposed Project is anticipated to begin in early 2020 and would continue for approximately 12 to 14 months. The excavation, construction, and installation of the underground storage reservoir, diversion channel, and pipe inlet structure would occur first followed by the installation of the drop inlet.

Approximately 25 to 30 construction workers would work during project construction. All construction activities would occur between 8 a.m. and 8 p.m., Monday through Friday; 9 a.m. and 8 p.m. on Saturdays; and 10 a.m. and 6 p.m. on Sundays and Holidays; consistent with the City of South San Francisco Municipal Code (SSFMC) Chapter 8.32, Noise Regulations, unless alternate schedules are approved by the City.

The proposed Project would be constructed in six phases:

- **Phase 1:** Staging, clearing and grubbing, and mobilization
- **Phase 2:** Excavation and export of excess soil
- **Phase 3:** Installation of large underground storage reservoir (cistern and infiltration system)
- **Phase 4:** Installation of the diversion pipe , pretreatment structure, and flow splitter
- **Phase 5:** Installation of cistern and infiltration reservoirs (subgrade installations) and construction of water quality polishing and disinfection shed (aboveground construction)
- **Phase 6:** Restoration of ballfields (backfilling/grading/installation of new turf)

The precise construction schedule depends on the timing of project entitlements and approvals. Once Project construction is complete, the two ballfields would be restored with new turf fields.

12. Operations and Maintenance:

Operations and maintenance of the Project would include cleaning out the grit chamber/trash screen and the baffle box up to four times annually; filtration and disinfection equipment maintenance annually; and weekly checks on the irrigation reuse system. Even with the grit chamber and baffle box, small amounts of suspended sediment would potentially settle out over time inside the cistern. The cistern would have two access hatches, one on either end of its rectangular configuration that would allow for sediment to be rinsed and vacuumed out every five to 10 years. Proposed maintenance activities involve:

- Removal of debris and other obstructions from the diversion, as needed;
- Maintain fences on channel banks; and
- Graffiti abatement, as needed.

The City of South San Francisco is in the process of developing an Operations and Maintenance Plan with the San Mateo County Flood Control District for the proposed Project improvements.

13. Public Outreach Process:

The proposed Project has involved a robust outreach process. An Outreach Plan was prepared and implemented to engage the community and stakeholders and to build consensus for stormwater capture and treatment improvements within Orange Memorial Park that meet or exceed the goals established by funding and oversight agencies. The outreach process explored alternatives for potential park enhancements, including water reuse, while also minimizing recreation impacts within the Park.

Five outreach meetings were also held to gather feedback and prioritize stakeholder goals and concerns. Outreach included the formation of a Steering Committee comprised of staff from the City of South San Francisco Parks & Recreation Department, San Mateo County Flood Control District, and two adjacent land owners. Once the three different project alternatives were developed, the outreach meetings were held to introduce the concepts to a Steering Committee, Environmental Subcommittee, Colma Creek Citizens Advisory Committee, Parks & Recreation Committee, and the public. The selection of the in-park water reuse system alternative was accepted by the City Council in November 2018.

Based on the outreach process, City staff recommended selection of the in-park water reuse system alternative with cisterns constructed under the softball and baseball fields. This alternative selection was presented to the Steering Committee and the Environmental Subcommittee in October 2018. During this time, the Steering Committee requested additional Park recreational improvements including new dugouts, bleachers, lighting, and a scoreboard.

These additional recreation improvements are outlined to be constructed in two phases under a separate and subsequent project referred to as the Orange Memorial Park Sports Field Renovation project summarized in the City's 2018-2019 Capital Improvement

Program. The City proposes to provide the recreation and ballfield renovation improvements as part of a separate project that would occur after completion and implementation of the Orange Memorial Park Water Capture Project given the ballfield improvements project has separate funding, recreation improvements, and design components.

14. Existing Setting:

The Project site covers approximately 1.5 acres within the 28-acre Orange Memorial Park. Project access is provided via Memorial Drive to the south. Existing development consists of park facilities including two ballfields (i.e. one baseball field, one softball field), tennis courts, a playground, recreation center, pool, and open picnic areas. The Project site is surrounded by urban residential development in all directions.

Photo 1. *The Project site is located along Colma Creek, a concrete lined channel that traverses the southern half of Orange Memorial Park near two ballfields (left).*

Colma Creek is a concrete-lined channel that traverses the southern half of Orange Memorial Park near two ballfields (Photo 1). Land use near Colma Creek is largely comprised of urban, industrial, and residential development. The nearest sensitive receptors consist of single-family residences situated approximately 70 feet to the east on the other side of West Orange Avenue and multi-family residences at Park Lane Apartments to the west of the Park and south of Colma Creek channel. Centennial Dog Park and Boys and Girls Club of South San Francisco are located to the south on the opposite side of Memorial Drive. Los Cerritos Elementary School is located southeast of West Orange Avenue.

Centennial Way Trail runs along the south side of the Park. The overall site topography is level, and the surface water flows generally from west to east. The Project site also has exterior lighting throughout the Park and sports field nighttime lighting around the softball field located in the southeast corner of the Park.

<u>Orange Memorial Park</u>

Orange Memorial Park is owned and operated by the South San Francisco Recreation & Parks Department. At approximately 28 acres, it is the largest developed park in the City of South San Francisco and contains a full range of active and passive recreation uses (Photo 2). The existing Park is roughly bisected by the Colma Creek drainage channel; the north and south portions of the Park are connected via two pedestrian bridge crossings. Park facilities on the north side include: the Joseph A. Fernekes Recreation Building; a soccer field; two basketball courts; six

Photo 2. *Orange Memorial Park contains a variety of active and passive recreational amenities, including an open picnic area with grass lawn.*

bocce ball courts; five tennis courts; skate park; indoor pool; two children's playgrounds; community art studios; and a sculpture garden. There is also an abandoned lot located in the northeast portion of the park. Park facilities on the south side include: a baseball field; softball field; children's playground; and an open picnic area with a large shelter/shade structure (see Figure 2; Photo 3). Most of the ground surface on the south side of the park contains one to four feet of imported fill material on top of native soil. Imported fill material was likely placed to create a level recreational surface for landscaping and the two ballfields.

Five group picnic areas that can be reserved to accommodate 20 to 150 people are located next to the ballfields. The Park also serves as the location for major community wide events, including: baseball and softball games and tournaments; Farmers Markets; car shows, and other public and private events, such as Concert in the Park, Day in the Park, Streets Alive!; Parks Alive!; and Movie Nights in the Park. While most of these special events occur within the northern portion of the Park at the soccer fields, Joseph A. Fernekes Building, and basketball and tennis courts, the Concert in the Park (in September) takes place on all of the park sport fields, and various picnic season events (March to October) occur at the five group picnic areas in the southern portion of the Park. Parking is provided along Tennis Drive, Memorial Drive, and within a parking lot located between the Joseph A. Fernekes Recreation Building and tennis courts.

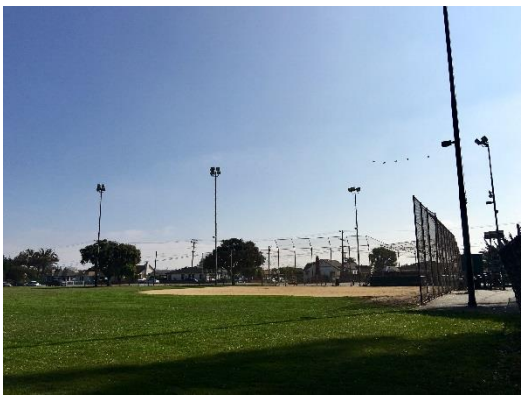

Photo 3. *The proposed Project involves the installation of water capture facility with large underground storage chambers located beneath two ballfields in the Park.*

While the Los Cerritos Elementary School does not regularly use the park, frequent school pedestrian and vehicle traffic exists near the ballfields given its proximity to the Park. The softball field at the southern corner of the Park near West Orange Avenue is the only field with nighttime lighting. The basketball courts, tennis courts, and bocce ball courts also have nighttime lighting.

The South San Francisco Farmer's Market is held every Saturday from 10:00 am to 2:00pm from May through October. It is located in the parking lot between the tennis courts and Joseph A. Fernekes Recreation Building. The Park also hosts an annual family-oriented Concert in the Park, a community event that occurs within the southern park area.

15. Surrounding Land Uses and Setting:

North – Low Density Residential Land Use

South – Medium Density Residential and Park and Recreation Land Use

West – High Density Residential Land Use

East – Medium and Low Density Residential Use

16. Other Public Agencies whose Approval is Required:

The City of South San Francisco is the Lead Agency under CEQA responsible for approving and carrying out the proposed Project. After City approvals (certification of the MND and MMRP, and approval of the Project), the following federal, state, and local permits and approvals would be required.

Agency	Approval Required
Federal	
United States Fish and Wildlife Service	• Confirmation of No Effect with United States Army Corps of Engineers (USACE)
United States Army Corps of Engineers	• Clean Water Act 404 Permit
State	
San Francisco Bay RWQCB	• NPDES General Construction Permit
	• Dewatering Permit
	• CWA Section 401 Water Quality Certification
	• Waste Discharge Permit
State Historic Preservation Office	• Section 106 National Historic Preservation Act • USACE must consult with the State Historic Preservation Officer and Native American Tribes if prehistoric, historic, or archaeological sites are affected
California Department of Fish and Wildlife	• Section 1600 Notification of Streambed Alteration Agreement
Local	
San Mateo County Flood Control District	• Plan Review for portion of the Project within the Colma Creek Flood Control Channel (i.e. drop inlet)
City of South San Francisco	• Grading Permit • Building Permit • Tree Removal Permit

3.0 ENVIRONMENTAL CHECKLIST

This section contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The environmental checklist form is used to describe the impacts of the proposed Project. A brief summary of the environmental setting and an impact analysis discussion follows each environmental topic identified in the checklist. Included in each discussion are project-specific mitigation measures recommended, as appropriate, as part of the proposed Project. The following designations are used:

Less Than Significant with Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing City of South San Francisco thresholds.

No Impact: The Project would not have any impact.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The proposed Project would potentially adversely affect the following six environmental resources. These are all considered "Less Than Significant with Mitigation Incorporated" as indicated by the checklist.

☐ Aesthetics	☐ Agriculture and Forest Resources	☐ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☒ Geology / Soils	☐ Greenhouse Gas Emissions	☒ Hazards / Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☒ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☒ Transportation	☐ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance
	☐ None	☐ None with Mitigation Incorporated

DETERMINATION (To be completed by the Lead Agency)

On the basis of this Initial Study:

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

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

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

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

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **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.

June 19, 2019

Signature — Date

Eunejune Kim — City Engineer/Public Works Director

Printed Name — Title

City of South San Francisco

Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

City of South San Francisco Project Review Process

The proposed Project is identified in the City's 2018-2019 Capital Improvement Program (CIP). The CIP outlines the planned and needed infrastructure improvements throughout the community. It consists of short and long-term plans for projects related to the City's infrastructure and projects are categorized into six areas: streets, storm drains, sanitary sewers, public facilities, parks, and traffic improvements. The program is the result of collaboration among various departments outlining the needed improvements and the priority for implementation of these projects. The City's Engineering Department, Parks & Recreation Department, and Planning Department have helped plan, design, and implement the proposed Project. Environmental protection measures identified through staff review of the Project, and any additional ones identified through the public review process, become required of the project as a matter of law pursuant to the South San Francisco Municipal Code. The City's Planning Commission also reviews the CIP prior to the City Council review and makes a recommendation whether it is consistent with the General Plan.

Prior to project approval and construction, all City departments and divisions review the proposed Project design and engineering plans for compliance with any conditions added pursuant to the public review process. Given the proposed Project is a City CIP, grading or demolition permits are would be issued by the City's Engineering Division or Planning Department. The 15 by 20 foot, single-story water quality polishing and disinfection shed would require a building permit (for structures larger than 10 feet by 12 feet). This process specifically applies to CIPs, such as the Orange Memorial Park Water Capture Project.

I. AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) In 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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

There are no designated scenic vistas visible from the Project site, and the surrounding vicinity does not contain any designated historic buildings, rock outcroppings, or scenic highways. The nearest designated scenic highway is Interstate Route 280, which is located approximately 1.30 miles west of the Project site (Caltrans 2018). One of the most predominant visual features visible from the Park is the surrounding rolling hills with native vegetation, notably South San Francisco's famous Sign Hill located to the northeast (Photo 4). Orange Memorial Park is visible from several elevated viewing points of Sign Hill Park, as well as from neighborhoods which contain public streets and other viewing locations situated on the slope.

Photo 4. *Sign Hill Park and sparsely vegetated hillsides serve as the scenic surroundings of Orange Memorial Park.*

Photo 5. *Park features within the Project site include a children's playground, trees of various species, an open picnic area, and two ballfields.*

Park features within the Project site include a children's playground, trees of various species, an open picnic area, and two ballfields (Photo 5). Public views of the Project site are visible from the Boys and Girls Club approximately 150 feet south of Orange Memorial Park's ball fields, and from Los Cerritos Elementary School, approximately 600 feet from the Park's southwest edge. The Park is bordered by high, medium, and low density single-family neighborhoods less than 100 feet to the north, south, east, and west.

The Project site is highly visible from the neighborhoods that border the Park on the southeast edge where there is less tree cover. These neighborhoods are located along West Orange Avenue, which are situated less than approximately 70 feet from the ball fields. The Project vicinity is also clearly visible from the Centennial Way bicycle and pedestrian trail, which lies adjacent to the Park to the west and south. A vacant undeveloped lot is located within the northwest side of the Park that was formerly a greenhouse parcel used for commercially-grown carnations. Views of Colma Creek from the Park, parking lot, residential areas, and surrounding streets are limited due to a four- to five-foot tall chain-link fence that borders the concrete channel and the upper edges of the concrete channel. Water is visible in the creek to viewers passing over the concrete channel via West Orange Avenue and over the two pedestrian bridges located in the Park.

Photo 6. *Landscaped areas within the Project site include expansive grass fields, clusters of bushes, and stands of trees that line the Park.*

There are many landscaped areas within the vicinity of the Project site, including expansive grass fields, clusters of bushes, and extensive stands of various species of trees (Photo 6). Eucalyptus trees ranging from 50 to 100 feet tall surround the Park's picnic grounds and Colma Creek and are the largest grove of tall trees in the Project vicinity. Linear formations of trees extend along Memorial Drive adjacent to the Park's baseball fields and adjoin the Joseph A. Fernekes Recreation building and children's playgrounds. A combination of eucalyptus and palm trees line the creek channel as well as surround the Park's open fields, including approximately 20 palm trees that line nearly 400 feet of the creek from the center of the Park to its intersection with West Orange Avenue. Trees and planting areas are also present within the Park's three parking lots. In particular, the parking lot accessible from Memorial Drive is lined with sections of mature trees including clusters of eucalyptus trees that separate the western boundary of the Park from the Park Lane Apartments. Shade structures and additional

trees also surrounding the picnic areas, tennis courts, and a recreational building within the Park.

Land uses in the Project vicinity are predominantly residential, commercial, and recreational. Existing nighttime light is generated from a majority of the Park's facilities, notably the baseball and softball fields illuminated for evening sports activity. Additional sources of nighttime light include the Park's five tennis courts, two basketball courts, playground, community art studios, skate park, recreational building, and picnic areas. The Park also contains lights to illuminate its pathways and parking lots during nighttime hours. Existing light sources in the Project vicinity consist of streetlights that illuminate the roads, indoor lighting from nearby residences, and light posts in parking lots of the surrounding commercial areas.

IMPACT ANALYSIS

a) Have a substantial adverse effect on a scenic vista?

Less than Significant Impact. Project construction would involve: excavation, grading and ground disturbance; heavy equipment operation and staging areas for equipment parking and material storage; and additional truck traffic on haul routes. Short-term visual impacts due to construction would occur; however, proposed Project infrastructure would be almost entirely underground except for the 15 by 20 foot, single-story water quality polishing and disinfection shed and irrigation pump. The shed and pump would be visible within the southern portion of the Park near the open picnic areas and two ballfields. The shed would be a single-story, not larger than the existing picnic structures within the Park, similar to the architectural style and color of the adjacent picnic structures, and would be consistent the existing visual character of the Park. Although short-term construction of the Project would be visible from viewing points in and around Sign Hill Park, no scenic resources or designated scenic vistas would be substantially affected by the Project. The small shed would not block existing views of surrounding landscaping onsite or surrounding landforms in the distance. Therefore, implementation of the proposed Project would result in a less than significant impact on scenic vistas.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less than Significant Impact. There are no designated state scenic highways within or adjacent to the Project site and Project construction would take place entirely within the boundary of Orange Memorial Park. The nearest scenic highway is Interstate Route 280, which runs approximately 1.3 miles west of the Project area (Caltrans 2018); the Project site is not visible from Interstate Route 280. Implementation of the Project would involve the removal of two eucalyptus trees protected by the City's Tree Preservation Ordinance, as discussed in Section IV, *Biological Resources*. According to the City's Tree Preservation Ordinance, Blue Gum (*Eucalyptus globulus*) with a circumference of 30 inches or more when measured at 54 inches above natural grade are protected in the City. One of the eucalyptus trees is located on the west end of the project area near the vacant City parcel; it measures 42 inches diameter at breast height (dbh). The other tree is located on the east end of the project area near the ballfield; it measures 48 inches dbh. Both trees measure

approximately 60 to 70 feet tall. Given only two eucalyptus trees would potentially be removed, in addition to several smaller trees (less than 4 inches dbh) and dozens of large protected and heritage trees line Colma Creek and are planted throughout the park, this limited tree removal would not substantially damage scenic resources within the Park. Tree removal for the Project would be conducted pursuant to the Chapter 13.30 Tree Preservation in the City's Municipal Code. Therefore, implementation of the Project would result in a less than significant impact on scenic resources within a state scenic highway.

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

Less than Significant Impact. Project construction activities would require excavating approximately 4,800 to 12,000 cubic yards of soil for the installation of the underground storage reservoir, and the use of construction equipment and storage of materials on site along Memorial Drive. These activities would introduce short-term contrasting features into the visual landscape that would affect the visual quality of the Park and its surroundings. Contrasting features would include excavated areas, stockpiled soils, and other materials generated and stored on site during construction. Adverse effects to the visual character of the Park associated with Project construction would be temporary and the existing ballfields would be regraded and restored to existing landform topographical contours upon Project completion. Therefore, implementation of the Project would result in a less than significant impact on scenic quality.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. Construction activities would not occur during nighttime hours. However, temporary security lighting would potentially be installed at the Project site during the 12- to 18-month construction period. Any temporary security lighting, which typically operates 24 hours a day, would be directed downward and towards the site to limit spillover light impacts on nearby residences. It would also be removed upon completion of construction. Therefore, Project construction would not adversely affect daytime or nighttime views in the area by introducing a substantial light source that would affect sensitive receptors. The temporary presence of low-level security lighting also would not contribute to a significant increase in lighting, as the level would be comparable to existing streetlights and light poles to illuminate walkways in the vicinity. No source of glare would be introduced as a result of construction of the proposed Project and no substantial source of light would be introduced upon Project completion as most of the components would be buried underground. Therefore, no impacts related to light and glare and nighttime views of the area would occur.

II. AGRICULTURE AND FOREST RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department 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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The Project site is located within Orange Memorial Park, in an urbanized area of the City of South San Francisco, surrounded by residential and commercial development. There are no existing agricultural or forestry resources on the Project site or in the vicinity. Historically, the Project vicinity supported several greenhouses utilized by carnation-growing company Mazzanti Carnations, Inc., but operations ceased in 1996 when the land was purchased by the City for the expansion of Park facilities (City of South San Francisco 2007). The Project

site is designated as "Parks and Recreation" by the City's General Plan (City of South San Francisco 1999; City of South San Francisco Planning Division 2015). The areas surrounding Orange Memorial Park are designated as High, Medium, or Low Density Residential; no parcels within the Project vicinity are zoned for agricultural use (City of South San Francisco Planning Division 2015).

The Project site is mapped under the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) as "Urban and Built-Up land". The Project site is not under a Williamson Act contract, and no agricultural land uses are present within the Project vicinity (California Department of Conservation 2016). The Project site does not contain any soils that consist of farmland of statewide importance (USDA 2018)

IMPACT ANALYSIS

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?

No Impact. The proposed Project site is an urban City park, and the surrounding vicinity is not zoned for agricultural use, nor mapped as prime, unique, or farmland of statewide importance (Department of Conservation 2016). No impacts on agricultural resources would occur.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact. The proposed Project site is an urban City park, and the surrounding vicinity is not zoned for agricultural use or under a Williamson Act contract (Department of Conservation 2016). The Project would not convert farmland to non-agricultural uses. The Project vicinity is not located near or within an area that is zoned for timberland production. No impacts on agricultural resources would occur.

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))?

No Impact. The proposed Project site is an urban City park, and the surrounding vicinity is not zoned for agricultural use. The Project is not located near or within an area that is zoned for timberland production. No impacts on agricultural resources would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The proposed Project would not result in the loss of forest land or convert forest land to a non-forest use. The proposed Project involves the installation of a water

capture facility within the Park. Therefore, no impacts on agricultural resources would occur.

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?

No Impact. The proposed Project would not involve changes in the environment that could result in the conversion of farmland to non-agricultural use or conversion of forest to non-forest use. Therefore, no impacts on agricultural resources would occur.

III. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?	☒ Yes		☐ No	
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?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The federal and state governments have identified six criteria air pollutants and a range of air toxics to protect the public health and welfare, and have established ambient air quality standards (AAQS) through the federal Clean Air Act (CAA) and the California Clean Air Act. Federal and state criteria air pollutants include carbon monoxide (CO), lead (Pb), nitrogen oxides (NO_x), ozone (O_3), particulate matter less than 10 microns in diameter (PM_{10}), fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), and sulfur dioxide (SO_2).

The proposed Project is located in the San Francisco Bay Area Air Basin (Basin), which includes all of Napa, Contra Costa, Alameda, Santa Clara, San Mateo, San Francisco, and

Marin Counties, the southern portion of Sonoma County, and the western portion of Solano County. The Bay Area Air Quality Management District (BAAQMD) monitors and regulates the local air quality in the Basin through the implementation of the Bay Area 2017 Clean Air Plan (BAAQMD 2017a). The BAAQMD operates 32 air monitoring stations over the Basin's nine counties. The monitoring station closest to the Project site is located in San Francisco approximately 8.2 miles north of the Project site. The station monitors O_3, NO_x, CO, PM_{10}, and $PM_{2.5}$ (BAAQMD 2018a). The BAAQMD identifies the federal and state AAQS (NAAQS and CAAQS, respectively) as well as the Bay Area's attainment status for each relevant air pollutant. Areas that do not meet the NAAQS or CAAQS are known as nonattainment areas. The region is in nonattainment for the state standards for O_3, PM_{10}, and $PM_{2.5}$, and federal standards for O_3 and $PM_{2.5}$. The Basin is in attainment or unclassified for all other criteria air pollutants (BAAQMD 2018b).

The topography of the San Francisco Bay Area Air Basin (SFBAAB) features coastal mountain ranges, valleys, and bays. The air quality within the Basin is influenced by a wide range of emission sources, such as heavy vehicular traffic, industry, weather, and dense population centers within its cities. The City of South San Francisco is located in San Mateo County in the Peninsula region of the San Francisco Bay Area. Sensitive receptors to air quality conditions within the Project vicinity include single-family residences along West Orange Avenue and at the Park Lane Apartment buildings, as well as faculty, staff and students at the Boys and Girls Club and Los Cerritos Elementary School. The closest sensitive receptors to air quality emissions are the single-family residences along West Orange Avenue and the multi-family residences at the Park Lane Apartments, both of which are located approximately 70 feet from the Project site.

Emissions Thresholds

Air quality impacts are assessed by comparing impacts to baseline air quality levels and applicable ambient air quality standards. Federal and state air quality standards have been established for criteria air pollutants. Standards are levels of air quality considered safe from a regulatory perspective, including an adequate margin of safety, to protect public health and welfare. The BAAQMD recommends that projects with construction and operation emissions that exceed any of the following emissions thresholds outlined in Table 2 should be considered potentially significant.

Table 2. BAAQMD Thresholds of Significance

Pollutant	Construction	Operation	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82	82	15
$PM_{2.5}$	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2017a

IMPACT ANALYSIS

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant. The SFBAAB is currently designated as in nonattainment for federal and state ozone, federal and state particulate matter 2.5 microns in diameter ($PM_{2.5}$), and state particulate matter 10 microns in diameter (PM_{10}) standards. The SFBAAB is designated in attainment or is unclassified for all other AAQS, and on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS, but must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation.

Due to the nonattainment designations in the Bay Area, the BAAQMD periodically prepares air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions via regulations, incentives, education, and agency partnerships. The most recent air quality plans were prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG). The latest federal ozone plan is the *2001 Ozone Attainment Plan*, adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001, and submitted for approval to the USEPA on November 30, 2001 (BAAQMD 2001). The most recent state ozone plan is the *2017 Clean Air Plan: Spare the Air, Cool the Climate*, adopted on April 19, 2017. The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate (BAAQMD 2017a). The 2017 plan also includes a wide range of control measures designed to decrease emissions of the air pollutants most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants (TACs), and to reduce emission of greenhouse gases (GHGs) that are climate pollutants. While a plan for achieving the State PM_{10} standard is not required, the BAAQMD has also prioritized measures to reduce particulate matter in developing the control strategy for the 2017 Clean Air Plan and this strategy provides the framework of the BAAQMD's particulate matter control program.

Adopted BAAQMD rules and regulations as well as the threshold of significance have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD's established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as for PM_{10} and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/year) are summarized in Table 3.

Table 3. National and California Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS	NAAQS	
			Primary	Secondary
Ozone (O_3) [a]	1-Hour	0.09 ppm (180 µg/m3)	NS	NS
	8-Hour	0.070 ppm (137 µg/m3)	0.075 ppm (147 µg/m3)	Same as primary
Inhalable Particulate Matter (PM_{10})	24-Hour	50 µg/m3	150 µg/m3	Same as primary
	Annual	20 µg/m3	NS	NS
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	No separate State standard	35 µg/m3	Same as primary
	Annual	12 µg/m3	15.0 µg/m3	Same as primary
Carbon monoxide (CO)	1-Hour	20 ppm (23,000 µg/m3)	35 ppm (40,000 µg/m3)	NS
	8-Hour	9.0 ppm (10,000 µg/m3)	9 ppm (10,000 µg/m3)	NS
Nitrogen dioxide (NO_2) [b]	1-Hour	0.18 ppm (339 µg/m3)	0.100 ppm (189 µg/m3)	NS
	Annual	0.030 ppm (57 µg/m3)	0.053 ppm (100 µg/m3)	Same as primary
Sulfur dioxide (SO_2) [c]	1-Hour	0.25 ppm (655 µg/m3)	NS	NS
	3-Hour	NS	NS	0.5 ppm 1,300 µg/m3)
	24-Hour	0.04 ppm (105 µg/m3)	0.14 ppm (365 µg/m3)	NS
	Annual	NS	0.030 ppm (80 µg/m3)	NS
Lead (Pb) [d]	30-Day Average	1.5 µg/m3	NS	NS
	Calendar Quarter	NS	1.5 µg/m3	Same as primary
	Rolling 3- Month Average	NS	0.15 µg/m3	Same as primary

Source: CARB, 2010

Notes:

[a] On January 19, 2010, the EPA released a proposed rule to strengthen the 8-hour primary O3 NAAQS to a level within the range of 0.060 to 0.070 parts per million by volume (ppmv). It also proposed to establish a cumulative, seasonal secondary O3 NAAQS within the range of 7 to 15 ppm-hours. (75 FR 2938)

[b] On February 9, 2010, the EPA finalized a rule to supplement the current annual NO2 standard by establishing a new 1-hour NO2 standard at a level of 100 parts per billion (ppb), based on the 3-year average of the 98th percentile of the yearly distribution of the 1-hour daily maximum concentrations. (75 FR 6474)

[c] On June 2, 2010, the EPA finalized rule to establish a new 1-hour SO2 NAAQS of 75 parts per billion by volume, based on the 3- year average of the annual 99th percentile of 1-hour daily maximum concentrations. The EPA also revoked both the existing 24- hour and annual primary SO2 standards. The final rule is effective 60 days after publication in the Federal Register.

[d] On November 12, 2008, the EPA revised the primary lead standard to 0.15 µg/m3 and revised the averaging period to a rolling 3-month period with a not-to-be-exceeded form, evaluated over a 3-year period. (73 FR 66964)

Key:

µg/m3 = micrograms per cubic meter
CAAQS = California Ambient Air Quality Standard
NAAQS = National Ambient Air Quality Standard
NS = no standard
ppm = parts per million

The BAAQMD *California Environmental Quality Act Air Quality Guidelines* (2017b) provide thresholds of significance for construction and operation-related activities (BAAQMD 2017b). If project emissions are less than the BAAQMD emission thresholds for ROG, NO_x, or PM_{10}, then emissions are considered to be less than significant and compliant with the measures in the applicable air quality plans. Proposed operational activities associated with the proposed water capture facility would not exceed the BAAQMD's emission thresholds. A quantitative analysis of emissions and necessary mitigation measures are described in further detail in Section III(b). Because operational activities would not exceed the BAAQMD's emission thresholds, the proposed Project would not conflict with or obstruct implementation of the applicable air quality plans, such as the federal, 2001 Ozone Attainment Plan and the BAAQMD's 2017 Clean Air Plan. Therefore, impacts would be less than significant.

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?

Less than Significant. As discussed above, the SFBAAB is currently designated as in nonattainment for federal and state ozone, federal and state particulate matter 2.5 microns in diameter ($PM_{2.5}$), and the state particulate matter 10 microns in diameter (PM_{10}) standard. Short-term construction emissions would result from activities during site preparation and mobilization (site clearing), grading and excavation, construction and installation of the underground storage reservoir, and final backfilling, grading, and irrigation installation. These emissions would be primarily from mobile on-road sources such as worker trips, material and equipment delivery trucks, and haul truck trips, and from mobile off-road sources, such as excavators, dozers, backhoes, cranes, water trucks, and other equipment.

Short-term emissions resulting from construction activities were calculated based on installation of the 7.5 acre-feet cistern/infiltration storage system (also referred to as the underground storage reservoir; larger system) and a worse-case scenario, where equipment runs simultaneously for 8 hours/day. This approach assumes maximum daily operating time for all equipment assigned during each construction phase. Construction emissions were calculated using the California Emissions Estimator Model (CalEEMod®). CalEEMod provides a uniform platform to estimate potential emissions resulting from construction and operation activities of land use projects (California Air Pollution Control Officer's Association [CAPCOA] 2016). Maximum daily emissions of criteria pollutants associated with construction activities including earthwork, haul trucks, and worker commuting are provided in Table 4. Table 4 also summarizes emissions for total unmitigated emission and basic mitigated emissions, including all the emission reduction measures required by the BAAQMD. Annual operational emissions are listed in Table 5.

Table 4. Maximum Daily Project Construction Emissions (pounds per day)

Emissions Source	CO	NO_x	ROG	SO_2	PM_{10}	$PM_{2.5}$
Total Unmitigated Emissions	**15.5**	**20.4**	**2.0**	**<1**	**7.2**	**4.3**
Total Basic Mitigated Emissions[1]	**15.5**	**20.4**	**2.0**	**<1**	**3.9**	**2.5**
BAAQMD Threshold[2]	N/A	54	54	N/A	82	54
Threshold Exceeded?	N/A	No	No	N/A	No	No

Notes:

[1] Fugitive dust assumes that exposed surfaces are watered twice daily and that speed is reduced to 15 miles per hour on unpaved surfaces. These assumptions are consistent with the BAAQMD's basic mitigation measures that are required on all construction projects.

[2] Thresholds for PM_{10} and $PM_{2.5}$ apply to construction equipment exhaust only.

Table 5. Annual Project Operational Emissions (tons per year)

Emissions Source	CO	NO_x	ROG	SO_2	PM_{10}	$PM_{2.5}$
Total Unmitigated Emissions	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
BAAQMD Threshold	N/A	10	10	N/A	15	10
Threshold Exceeded?	No	No	No	No	No	No

Notes:

[1] Fugitive dust assumes that exposed surfaces are watered twice daily and that speed is reduced to 15 miles per hour on unpaved roads. These assumptions are consistent with the BAAQMD's basic mitigation measures that are required on all construction projects.

Key:

CO = carbon monoxide
N/A = not applicable
NOx = oxides of nitrogen
PM_{10} = inhalable particulate matter
$PM_{2.5}$ = fine particulate matter
SO_2 = oxides of sulfur
VOC = volatile organic compounds

According to the CalEEMod results, the proposed short-term Project construction and operation emissions would be below the applicable BAAQMD thresholds of significance. Therefore, the proposed Project would not be considered to result in a significant short-term air quality impact during construction or operation. The BAAQMD has also established Basic Construction Mitigation Measures that should be implemented for all construction projects, regardless of whether emissions exceed the thresholds of construction. The following control measures would be implemented, as required by the BAAQMD's *California Environmental Quality Act Air Quality Guidelines* (2017b), during all construction activities at the site.

- 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.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (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.
- A publicly visible sign shall be posted with telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

While the proposed Project would result in short-term construction and operation criteria pollutant emissions below the applicable thresholds of significance, the implementation of these BAAQMD Basic Construction Mitigation Measures would further minimize emission impacts.

Past, present and future development projects also contribute to the Bay Area's adverse air quality impacts on a cumulative basis, as air pollution is largely a cumulative impact and a single project is not sufficient in size to result in nonattainment of AAQS. Instead, a project's individual emissions can contribute to existing cumulatively significant adverse air quality impacts. The thresholds of significance presented in Table 4 and Table 5 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the BAAQMD's significance thresholds, the proposed Project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. Given that construction and operation emissions would be below the applicable thresholds of significance and the Project would implement the BAAQMD's Basic Construction Mitigation Measures, the proposed Project would not result in a cumulatively considerable contribution the region's existing air quality conditions. As a result, air quality impacts would be considered less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant. The proposed Project would be constructed in a residential neighborhood within close proximity to sensitive receptors. Sensitive land use receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. Sensitive receptors to air quality conditions within the Project vicinity include residents in nearby single-family residences along West Orange Avenue and multi-family residences at the Park Lane Apartment buildings, as well as faculty, staff and students at the Boys and Girls Club and Los Cerritos Elementary School. The closest sensitive receptors to air quality emissions are the single-family residences along West Orange Avenue and the multi-family residences at the Park

Lane Apartments, both of which are located approximately 70 feet from the Project site. As described in previous sections, the proposed Project would not result in significant emissions of pollutants. However, the proposed Project construction would potentially expose sensitive receptors to other pollutant concentrations of concern, such as CO emissions and TAC emissions.

Localized concentrations of CO are related to the levels of traffic and congestion along streets and nearby intersections, such as West Orange Avenue and El Camino Real. High levels of localized CO concentrations are typically expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are a potential pollutant of concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline. In other words, CO emissions are related to traffic levels. The BAAQMD has established screening criteria for localized CO emissions. A proposed project would result in a less than significant impact related to localized CO emission concentrations if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

According to the Traffic Impact Analysis Memorandum, as discussed in further detail in Section XVI, *Transportation*, implementation of the proposed Project would not result in any impacts related to transportation or circulation (Appendix G). The proposed Project would not interfere with an applicable congestion management program, regional transportation plan, or local congestion management agency plans. According to the Traffic Impact Analysis Memorandum, the maximum traffic volume that would occur during project construction (i.e. excavation phase) would be 725 haul and worker vehicle trips per day (Appendix G). Therefore, Project-related traffic would not increase traffic volumes at any affected intersection to more than 24,000 or 44,000 vehicles per hour. Therefore, the proposed Project would not result in levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards.

For TAC emissions, BAAQMD recommends that any proposed Project that includes the siting of a new emission source or sensitive receptor assess impacts within 1,000 feet of the project property boundary (BAAQMD 2017a). The proposed water capture facility is not considered a sensitive receptor that would expose on-site sensitive receptors to substantial pollutant concentrations associated with any existing uses at the Park. Typical sources of TAC emissions include, but are not limited to, freeways and high traffic roads, distribution centers, rail yards, and distribution centers. Also, the proposed Project would not involve land uses or operations that would be considered major sources of TACs. As such, it would not generate any substantial pollutant concentrations during operations. While the proposed Project's short-term, construction-related activities could result in the generation

of TACs associated with off-road equipment exhaust emissions, the construction is temporary and would occur over a relatively short duration. In summary, the proposed Project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, air quality impacts would be less than significant.

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

Less than Significant. Common odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed Project would not introduce these land uses, nor is the Park located in the vicinity of any such existing land uses. Diesel fumes associated with diesel-fueled equipment and heavy-duty haul trucks used during construction activities, however, would potentially be objectionable. The proposed Project would not involve any land uses that generate substantial diesel fumes, but the proposed Project's short-term, construction-related activities would potentially result in the generation of objectionable odors associated with off-road equipment exhaust emissions. Although diesel fumes from construction equipment are sometimes found to be objectionable, construction would be temporary and activities for the proposed Project would be minimal. Construction equipment would operate intermittently throughout the course of a day, would be restricted to daytime hours per Title 8, Section 8.32.050 *Special Provisions*, of the City's Municipal Code, and would likely only occur over portions of the Project area at a time (City of South San Francisco 2018a). All construction equipment and operation would also comply with applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. These BAAQMD rules include Regulation 7, Odorous Substances, however; this rule does not become applicable until the Air Pollution Control Officer (APCO) receives ten or more odor complaints within a 90-day period. If Regulation 7 goes into effect the APCO can place limitations on odorous substances and specific emissions from odorous compounds. Compliance with BAAQMD rules and regulations would further minimize air pollutant emissions, as well as any associated odors, thereby minimizing the impacts to nearby sensitive receptors along West Orange Avenue and at the Park Lane Apartments. Therefore, potential odor effects associated with the proposed Project would be less than significant.

IV. BIOLOGICAL RESOURCES

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

ENVIRONMENTAL SETTING

The Project site covers approximately 1.5 acres within the 28-acre Orange Memorial Park. Existing development consists of park facilities surrounded by urban residential development in all directions and a segment of Colma Creek runs through the Park. The reach of Colma Creek that bisects the Park consists of a vertical and trapezoidal-shaped concrete drainage with concrete channel walls and bed (Photo 6).

Colma Creek is a perennial drainage that flows for approximately 8 miles from its headwaters in San Bruno Mountain State and County Park. It runs through the cities of Daly

City, Colma, and South San Francisco where it eventually discharges into San Francisco Bay. A 5.4-mile long segment of Colma Creek consists of a concrete-lined drainage channel with varying channel dimensions. Portions of the channel include earthen channels, channels with concrete walls and earthen beds, and fully concrete lined channels with box culverts. The reach of Colma Creek adjacent to the Project site consists of a modified and constructed concrete channel that contains previously disturbed non-tidal riverine habitat. Varying amounts of sediment accumulate across the concrete channel bed that bisects the Park. The concrete channel in the far western portion of the Park measures 40-feet wide by 10-feet in height and transitions to 35-feet wide near the second pedestrian bridge.

Photo 6. *Colma Creek consists of a perennial and intermittent drainage within a concrete lined channel that bisects Orange Memorial Park.*

For purposes of this analysis, special-status species are defined as any plant or wildlife species that have been listed as threatened or endangered by the U.S. Fish and Wildlife Service, National Marine Fisheries Service (NMFS), or CDFW; recognized as a CDFW species of special concern (SSC); or are included in the California Rare Plant Rank (CRPR) inventory, which is maintained by the California Native Plant Society (CNPS). Special status plant and wildlife species with the potential to occur in the Project area were identified through a review of the following resources:

- California Natural Diversity Database (CNDDB) Query;
- USFWS Information, Planning, and Consultation System (IPaC System) Report for the Project Area
- CNPS Inventory Database

Biological reports reviewed in preparation of this section include:

- Biological Assessment for Colma Creek Flood Control Channel Maintenance Project (Horizon 2015a)
- Wetland Delineation for the Colma Creek Flood Control Channel Maintenance Project (Horizon 2015b)

Biological technical memorandum referenced in this section includes:

- Environmental Evaluation Memorandum for the Orange Memorial Park Water Capture Project (includes a Biological Resources Assessment and Wetland Delineation) (Wood 2018) (Appendix B).

The City's General Plan does not identify any sensitive biological habitats within the proposed Project site (City of South San Francisco 1999).

Special-status plant, reptile, amphibian, and mammal species known to occur in the vicinity of the Project area are included in Appendix B. These species were identified using the CNDDB Query and the USFWS IPaC report for the Project area. All these species have either no potential to occur or are not expected to occur in the Project area because no suitable habitat or only marginally suitable habitat is present. Although the portion of the Colma Creek that lies within the Park is not considered suitable for fisheries, habitat for green

sturgeon (*Acipenser medirostris*) does occur in the downstream, tidally-influenced portion of Colma Creek. Downstream habitat is also present for steelhead (*Oncorhynchus mykiss*) and coho salmon (*Oncorhynchus kisutch*) where Colma Creek drains into San Francisco Bay. The Project site contains habitat that could be occupied by nesting birds. The Project site also contains native trees, including western sycamore and coast live oak. Brief summaries of these special-status species are provided below.

Fish

Green Sturgeon

Green sturgeon *(Acipenser medirostris)* is federally listed as threatened. The Project area does not support spawning habitat for green sturgeon. Juvenile, sub-adult, and adult fish use San Francisco Bay for feeding and other non-reproductive purposes (Heublein et al. 2009). Green sturgeon, however, are not expected to occur in the upper reaches of Colma Creek where the stream transitions to a concrete drainage channel.

Steelhead

Steelhead (*Oncorhynchus mykiss)* is federally listed as threatened. Two sites in Colma Creek were sampled in September 1981 as part of a fish distribution study (Leidy 1984). No steelhead species were collected, and the study indicates the creek was very disturbed at the time of this study (Leidy 1984). A similar distribution study was again conducted in 2002, and no steelhead species were observed, nor was suitable habitat present (Leidy 2002). According to those studies, it was concluded that the Colma Creek watershed does not contain suitable habitat to support salmonids. Though not expected, adult steelhead could stray into the Project area during migration periods (typically December – March), but are not expected to be present in the upper reaches of Colma Creek (Moyle 2002).

Coho Salmon

Coho salmon *(Oncorhynchus kisutch)* is federally listed as endangered and state listed as an endangered species. Coho salmon habitat occurs near shore, bays, lagoons, river mouths, and tidal rivers. Spawning streams are mainly in areas with redwood forests as the dominant vegetation. There is no suitable habitat for the species near the Project area.

Longfin Smelt

Longfin Smelt (*Spirinchus thaleichthys*) is state listed as threatened and is a federal candidate species. Larval, juvenile, and adult longfin smelt would potentially be present in the central portion of the San Francisco Bay Estuary, but spawning does not occur in this portion of the estuary (Robinson and Greenfield 2011). Longfin smelt are not expected to occur in the upper reaches of Colma Creek.

Birds

California Ridgway's Rail

The California Ridgway's rail (*Rallus obsoletus* ssp. *obsoletus*) is a federally and California state listed endangered species, and an fully protected species that prefers salty and brackish water marshes vegetated with pickleweed and cordgrass. California Ridgway's rail has been documented directly along San Francisco Bay where brackish marshes are present. Although Colma Creek connects the mouth of the Bay with these marshes, there is

no habitat within the reach of Colma Creek near the Park, or within the Park itself. Also, no suitable habitat is present adjacent to the site due to surrounding urbanization.

Alameda Song Sparrow

Alameda song sparrows (*Melospiza melodia pusillula*) are a state species of concern, and a bird of conservation concern species endemic to tidal salt marshes on the fringes of south San Francisco Bay. They require tidal marsh habitats that have a specific configuration of exposed ground, water and vegetation. Nesting usually occurs within upland habitat (Shuford and Gardali 2008). As there are no tidal marshes within the survey area, this species is not expected to be found nesting within the Park.

American Peregrine Falcon

American peregrine falcons (*Falco peregrinus anatum*) are a bird of conservation concern and fully protected species at their nest sites. Nesting habitat includes coastal cliffs, desert cliffs, bridges, skyscrapers and other large buildings. Peregrine falcons are not found nesting in trees and are not typically observed in parks. However, they prefer wide-open spaces for foraging. There are no tidal marshes or suitable nest habitats within the site and therefore this species is not expected to be found nesting on site.

Native Trees

Western Sycamore

Western sycamore (*Platanus racemosa*) is a deciduous tree that grows between 50 to 80 feet high; massive trunks can grow straight and erect but are more commonly irregular. This species is native to California and is common along streams, in canyons, and in arroyos in northern California. Western sycamores are used in landscaped areas such as parks as they provide ample shade and are appealing trees. One mature western sycamore tree was mapped within the survey area along the edge of the eucalyptus trees that are growing along Colma Creek (Appendix B).

Coast Live Oak

Coast live oak (*Quercus agrifolia*) is an evergreen tree that grows up to 35 to 80 feet high tall with a broad, dense crown and widely spreading branches. Coast live oak is native to California and is naturally found along the coastal ranges from northern central California south to northern Baja California, typically in mixed evergreen forests, foothill woodlands, and southern oak woodland communities. Coast live oaks are also used for landscaped areas, such as parks, as they provide shade and an aesthetic appeal. Thirteen mature coast live oak trees were mapped within the survey area. One tree is adjacent to the playground located in the northwestern part of the survey area, one is located along the northern bank of the Colma Creek Flood Control Channel just east of the lower footbridge, one is part of the landscaping adjacent to a parking lot, and the other ten trees are located along West Orange Avenue (Appendix B).

There are also numerous protected trees within the Park, including several heritage trees that are protected by the City's Tree Preservation Ordinance line the Colma Creek channel.

Waters of the United States/Wetlands

Waters of the United States

An approximately 1,092-foot long (0.695 acre) portion of the Colma Creek flood control drainage channel lies within the survey area, bisecting Orange Memorial Park in a northwest to southeast direction. The bottom and sides of this part of the channel are entirely lined with concrete. Upstream of the northwestern portion of the Park past the pedestrian bridge, the channel is approximately 11 feet deep with vertical banks and 40 feet wide. Downstream of this bridge and continuing to Orange Avenue, the channel narrows to 35 feet with banks that are vertical from the channel bottom up to approximately 6 feet where they slant out at a 45-degree angle to the top of the channel. Downstream of Orange Avenue, the concrete channel widens and becomes trapezoidal. It then drains directly to the San Francisco Bay, a traditional navigable waterway (TNW). The entire section of the channel within the survey area is considered Non-Wetland Waters of the U.S. and State and under jurisdiction of the USACE pursuant to Section 404 of the CWA, RWQCB under Section 401 of the CWA, and CDFW under Section 1602.

Wetlands/Riparian Areas

Within the survey area, the channel is unvegetated with the exception of a narrow strip along the northern side of the channel bottom near the northwestern boundary of the survey area and several of the joints at the top of the channel near the southeastern end of the survey area (Photo 7). The herbaceous vegetation along the channel bottom was observed during an October 2018 site visit, but was under water during the March 2019 site visit by Wood biologists. This vegetation was growing in areas where patches of sediment were present along the channel bottom. Ruderal upland species, such as Canada horseweed (*Erigeron canadensis*) were observed growing in the joints near the top of the channel close to Orange Avenue. No riparian areas or wetlands were identified in the Project area.

Photo 7. *Narrow strips of riparian vegetation are visible along the concrete bottom channel where patches of sediment accumulated.*

IMPACT ANALYSIS

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

Less than Significant with Mitigation. Implementation of the proposed Project would not result in adverse effects of any species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the CDFW or USFWS. According to the City's General Plan, the proposed Project does not contain areas identified

as containing sensitive biological habitats (City of South San Francisco 1999). While numerous species were identified in the IPaC and CNDDB queries, most species identified as having the potential to occur in the general vicinity of the Project area occur in specialized habitats, such as riparian, wetlands, marshes, coastal scrub, or grasslands, and do not have the potential to occur within the Project site, the Park, or within the Colma Creek channel (Appendix B). The Project site lacks suitable habitat due to adjacent urban development, previously disturbed areas, and the distance to the tidal areas of the San Francisco Bay. Excavation activities associated with the installation of the diversion pipes would involve the removal of two protected eucalyptus trees in the Park. One of the eucalyptus trees is located on the west end of the Project area near the vacant City parcel; it measures 42 inches dbh. The other tree is located on the east end of the project area near the ballfield; it measures 48 inches dbh. Both trees measure approximately 60 to 70 feet tall. Given only two eucalyptus trees would be removed and dozens of large protected and heritage trees line Colma Creek and are planted throughout the park, this limited tree removal would not substantially affect habitat within the Park for candidate, sensitive, or special-status species.

While construction activities, specifically tree removal would potentially impact nesting birds that could in turn result in nest abandonment, these potential impacts would be reduced by compliance with the City's Tree Preservation Ordinance (No. 1271-2000, Municipal Code Chapter 13.30) and by conducting nesting bird surveys prior to construction activities during the nesting season (February 15 to August 31). Construction activities would potentially impact roosting sites for hoary bats and native trees within the Project site, including western sycamore and coast live oak, but with the exception of the removal of two eucalyptus trees, construction around these native trees would be avoided during construction. Project impacts would permanently alter approximately 520 square feet (0.012 acres) of USACE jurisdictional non-tidal waters of the USACE and CDFW jurisdictional waters from installing a drop inlet that spans the Colma Creek drainage channel. Numerous stormwater structures exist within Colma Creek channel and the concrete channel lacks riparian vegetation and suitable aquatic habitat; however, construction of the drop inlet could potentially impact downstream special status species. Therefore, the implementation of MM BIO-1 is required to ensure a biological avoidance and minimization plan is developed to protect sensitive species and habitats during work activities. The plan would include worker environmental awareness training, pre-construction surveys, the establishment of non-disturbance buffer zones, and monitoring. Therefore, impacts to special-status fish and bird species would be less than significant with mitigation.

Mitigation Measure BIO-1: Biological Avoidance and Minimization Plan

Prior to construction, a contractor shall prepare a Biological Avoidance and Minimization Plan for review by the City of South San Francisco. At a minimum, the plan shall include a Worker's Environmental Awareness Training Program, pre-construction surveys, and the establishment of non-disturbance buffer zones around protected trees. The pre-construction surveys shall commence within 14 days prior to construction work during the avian nesting season (February 15 to August 31). During this time, a qualified biologist or arborist shall conduct the pre-construction nesting bird survey

within the Project site boundary and along Colma Creek (If construction work would not occur during the nesting season, a nesting survey is not required).

If special-status birds are not identified nesting within the area of effect, further mitigation is not required. If special-status birds are identified nesting within the area of effect, a qualified biologist or arborist would determine a 75-foot no-disturbance buffer around the nest(s) shall be staked with orange construction fencing. Construction or earth-moving activities shall be restricted within the identified buffer until the determination is made by a qualified biologist or arborist that the young have fledged (i.e., left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by June 15; however, the date shall be determined by a qualified biologist or arborist and would potentially be later. The preconstruction nesting bird survey shall be submitted for review and approval by the City of South San Francisco Parks and Recreation Division. Non-disturbance buffer zones would potentially also be required to delineate tree protection areas around native and protected trees.

Implementation of Mitigation Measure (MM) BIO-1 would reduce potential impacts on biological resources to less than significant.

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

Less than Significant. The proposed Project would occur within and adjacent to Colma Creek, a perennial stream that has been identified as a non-tidal water of the United States that flows into tidal waters of the United States. The drainage channel has been previously modified for flood control management and the area adjacent to the creek does not support riparian habitat. The bottom and sides of the 35 to 40-foot channel are entirely lined with concrete and the majority of the adjacent upland vegetation consists of eucalyptus woodland and ornamental trees. Riparian vegetation was only observed growing on accumulated sediment within the channel during dry months; however, this vegetation was not observed in the wet months (Appendix B). No local or regional sensitive habitat types, natural communities, or sensitive plant species regulated by the USFWS and CDFW are present within the Project site. Urban recreational development within the Park has removed much of the suitable habitat for sensitive plant species. The proposed Project would involve installing a drop inlet within the bottom of the concrete channel, but would not impact any adjacent riparian habitat. The proposed Project would divert and treat a portion of annual flows within Colma Creek. The flows diverted would be small (less than five percent of annual flows) and would not substantially alter the downstream water flows within Colma Creek, nor riparian habitat or downstream sensitive fish or bird species (i.e, Green Sturgeon, California Ridgeway's Rail) within the tidal salt and brackish marshes in San Francisco Bay. While a portion of the treated flows would be used for irrigation (one percent), the majority of the diverted water would be treated, infiltrated back into the groundwater table, or discharged back to Colma Creek via an outfall pipe. Depending on seasonal water table variations during the year, the water infiltrated to the groundwater table via the water capture facility would eventually flow towards the San Francisco Bay,

and the downstream segment of Colma Creek would receive water from the groundwater inflow. The downstream segments of Colma Creek past U.S. Highway 101 (half-mile from Park) are also influenced by tidal fluctuations in the San Francisco Bay. Consequently, the proposed Project would not have a substantial adverse impact on riparian or salt marsh habitats as identified by CDFW or the USFWS, nor on downstream riparian or salt marsh habitats within the tidally-influenced portion of Colma Creek. Therefore, impacts related to riparian habitat or other sensitive natural communities would be less than significant.

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?

Less than Significant. As discussed above, the proposed Project would occur within and adjacent to Colma Creek, a perennial stream that has been identified as a non-tidal water of the United States that flows into tidal waters of the United States. The creek channel has been modified for flood control management the areas adjacent to the Colma Creek do not support wetlands. The bottom and sides of the channel are entirely lined with concrete and the majority of the adjacent and upland vegetation consists of Eucalyptus woodland and ornamental trees. Previous development of the concrete drainage channel and the urban recreational development within the Park has removed adjacent wetland habitat. Project implementation would also involve obtaining a Nationwide 7 permit (Outfall Structures and Associated Intake Structures) under Section 404 of the CWA. Though the proposed Project would involve the installation a drop inlet and diversion channel that spans the bottom of the concrete channel, in addition to an overflow pipe and wier, the proposed Project would not have a substantial adverse impact on state or federally protected wetlands. The proposed drop inlet and diversion channel would measure approximately four feet wide and would be installed flush with the bottom of the concrete channel, which measures approximately 40 feet. Each side of the drop inlet and diversion channel would be slightly modified to accommodate a two to three foot wide ramp area to drain the water flow towards the inlet structure. This design would involve minor changes to the cross section of the channel and only minor removal of concrete that lines the bottom of the channel. Wetlands impacts would be further reduced through compensatory mitigation conditions required as part of the Nationwide 7 permit. Impacts on biological resources would be less than significant.

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?

Less than Significant. As discussed above, the Project site would occur within and adjacent to Colma Creek, a perennial stream that has been identified as a non-tidal water of the United States that flows into tidal waters of the United States. Given the drainage channel has been previously modified for flood control management and the bottom and sides of the channel are entirely lined with concrete, the area adjacent to the Colma Creek does not support wetland or riparian habitat suitable to support native resident wildlife species. Colma Creek is a tributary as a concrete channel upstream from San Francisco Bay.

While the San Francisco Bay supports native fish such as steelhead, coho salmon, green sturgeon, and longfin smelt, the creek channel does not provide suitable habitat for native fisheries given the lack of vegetation and bottom substrate. Previous studies for downstream reaches of Colma Creek also found the area generally unsuitable for sensitive fish populations (Horizon Water and Environment 2015). While the proposed Project also involves the diversion of annual flows, only five percent of annual flows would be diverted and the majority of the treated water would infiltrate back into the groundwater table or be discharged back to Colma Creek. Consequently, the proposed Project would not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. Impacts on biological resources would be less than significant.

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

Less than Significant. The City of South San Francisco's Tree Preservation Ordinance provides standards and requirements for the protection of certain large heritage trees and trees within unique characteristics. The Ordinance also establishes recommended standards for planting and maintaining trees on property that is already developed. Vegetation within the Project area is typical of an urban park setting, with mostly ornamental plantings and eucalyptus trees planted for shade and boundary. There is one mature western sycamore tree and 13 mature coast live oak trees within the Project area. While no native trees are proposed for removal, two protected eucalyptus would be removed, in addition to a few smaller trees (less than 4 inches dbh) near the picnic areas. With the implementation of MM BIO-1 and the mandated tree protection measures outlined in the City of South San Francisco's Municipal Code, 13.30 Tree Preservation (Chapter 13.30.030 Prohibitions and protections for protected trees), the proposed Project and tree removal activities would be consistent with the City's Tree Preservation Ordinance. As a result, impacts on biological resources would be less than significant.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The San Bruno Mountain Habitat Conservation Plan (HCP) was prepared for the County of San Mateo in 1982 and was authorized by the USFWS in 1983. According to the City's General Plan EIR, the City of South San Francisco contains two areas designated as habitat for the conservation of threatened and endangered species: San Bruno Mountain and the portion of Sign Hill currently classified as a City park, both which are subject to the San Bruno Mountain HCP. The proposed Project site is not within the planning area for the San Bruno Mountain HCP (San Mateo County 1982). Also, the City does not have an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impact on biological resources would occur.

V. CULTURAL RESOURCES

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

ENVIRONMENTAL SETTING

Historic and cultural resources in South San Francisco are protected through the process of local designation and oversight by the Historic Preservation Commission. The City of South San Francisco contains one national historic landmark, Sign Hill, and other designated resources including several residential and commercial buildings in the downtown area. According to the General Plan EIR, Orange Memorial Park, including the proposed Project site is not located within the vicinity of any identified historic resources. According to the City's General Plan EIR and consistent with the City's history as an Ohlone settlement location, there are Native American village sites and archaeological sites recorded throughout the City. Known resources occur along the El Camino Real corridor, in the San Bruno Mountains, and adjacent to portions of Colma Creek.

The proposed water capture facility would be located within approximately 1.5 acres along the Colma Creek channel, within the southern half of the 28-acre Park. An archaeological literature review and records search was conducted at the California Historical Resources Information System (CHRIS) Northwest Information Center (NWIC) at Sonoma State University for the Project site and a 0.5-mile radius around the Park (Appendix C). Thirty cultural resource investigations have been conducted in the Project area and within 0.5 miles from the proposed Project site. Two of the previous investigations were conducted within a portion of the proposed APE. The NWIC search identified three previously recorded archaeological resources within 0.5 miles of the proposed Project site (i.e., P-41-000048, P-41-000409, and P-41-000495), but no resources are recorded within this area.

Wood Environment & Infrastructure (E&I) archaeologists conducted a Phase 1 Archaeological Investigation including an intensive ground surface survey of the proposed Project APE on January 4, 2019 of the proposed Project area of disturbance, or Area of Potential Effect (APE), defined as the horizontal and vertical extent of all temporary and permanent topographic modifications (e.g., 10 to 12 feet bgs). No prehistoric or historic-period cultural resources were identified within the APE, but the potential for unknown subsurface resources was identified resulting from Colma Creek alluviation over the past 10,000 years. Therefore, Wood E&I conducted an Extended Phase 1 Archaeological

Investigation including systematic excavations throughout the APE from March 12 to March 14, 2019. The investigation consisted of excavating fourteen (14) two-inch diameter geoprobes spaced between 100- and 200-feet apart to depths between 10 to 13 feet bgs; all soils were screened through one-quarter-inch mesh. No prehistoric or historic-period archaeological materials were identified in any of the excavated soils,. The previously undisturbed soils within the proposed Project APE were deposited during episodes of repeated flooding along the Colma Creek channel that meandered over time. These intact alluvial soils indicated that ground surfaces within the proposed Project APE were not occupied throughout prehistory or since Euro-American settlement (Appendix C) (The Extended Phase 1 Archaeological Survey Report contains confidential archaeological information as is maintained at City of South Francisco offices, and is only available for review at the City offices).

IMPACT ANALYSIS

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

No Impact. As defined in Section 15064.5 of the CEQA Guidelines, a historical resource is as any object, building, structure, site, area, place, record, or manuscript determined to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Historical resources are further defined as being associated with significant events, important persons, or distinctive characteristics of a type, period or method of construction; representing the work of an important creative individual; or possessing high artistic values. Resources listed in or determined eligible for the California Register of Historical Resources (CRHR), included in a local register, or identified as significant in a historic resource survey are also considered historical resources under CEQA. No such resources are located within the proposed Project APE.

Direct impacts are those that cause substantial adverse physical change to a historical resource. Indirect impacts are those that cause substantial adverse change to the immediate surroundings of a historical resource such that the significance of a historical resource would be materially impaired. The intensive surface survey and Extended Phase 1 excavations did not identify any prehistoric or historic-period archaeological resources. Because no cultural resources were identified at the Project site, the implementation of the proposed Project would have no impact on historical resources.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than Significant with Mitigation. Policy 7.5-I-4 of the City's General Plan requires that the City ensure the protection of known archaeological resources by requiring a records review for any development proposed in areas of known resources. Similarly, Policy 7.5-I-5 requires that development project proposals include the preparation of a resource mitigation plan and monitoring program by a qualified archaeologist in the event that archaeological resources are uncovered. While the majority of the Project site has been previously disturbed as a developed recreational park and filled with imported soil

material, ground disturbance and excavation within the two ballfields would occur during construction. Trenchless excavation would also occur across the open picnic area and pedestrian path along the south side of Colma Creek. As discussed in Section V, *Cultural Resources* (a), an archaeological literature review and records search was conducted at the CHRIS NWIC at Sonoma State University for the Project site and a 0.5-mile radius around the Park (Appendix C). Thirty previous cultural resource investigations have been conducted in the Project area extending 0.5 miles from the proposed Project APE, and two of the previous investigations were conducted within a portion of the proposed APE.

No prehistoric or historic-period cultural resources were identified during the Phase 1 and Extended Phase 1 Archaeological Investigation of the proposed Project APE. Intact soils within the proposed Project APE experienced episodes of repeated flooding along Colma Creek and a creek channel that regularly meandered over time. These intact alluvial soils indicated that ground surfaces within the proposed Project APE were not occupied throughout prehistory or since Euro-American settlement. Subsoils have a low potential for the presence of prehistoric archaeological sites, as the ground surface would not have been exposed long enough to develop into a table surface suitable for occupation and any evidence of such occupations would have eroded and carried downstream. As a result, there is little potential for archaeological resources to occur within the Project site and no further archaeological monitoring is recommended. There is a remote possibility that unanticipated archaeological resources could be discovered during Project excavation activities, which could result in a potentially significant impact on cultural resources. Therefore, the implementation of mitigation that ensures assessment of any unexpected cultural resources by a qualified archaeologist is required to reduce potential impacts to less than significant.

Mitigation Measure CUL-1: Archaeological Resource Discovery Plan

> Prior to the issuance of a grading permit, Project plans shall include a requirement indicating that if historic or cultural resources are encountered during site grading, excavation, or other work, all such work shall be temporarily halted immediately within 100 feet of the area of discovery and the contractor shall immediately notify the City of the discovery. In such case, the applicant shall retain the services of a qualified archaeologist for the purpose of recording, evaluating, protecting, and curating the time-sensitive discovery as appropriate. The archaeologist shall be required to submit to the City for review and approval a report of the findings and method of curation or protection of the resources. Grading or site work within the vicinity of the discovery, as identified by the qualified archaeologist, shall not be allowed until the appropriate steps have taken place.

Implementation of MM CUL-1 would reduce potential impacts on cultural resources to less than significant.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant with Mitigation. As noted in Section V, *Cultural Resources* (a) and (b), the City has Native American village sites scattered around the City. While the majority of the Project site has been previously disturbed as a developed recreational park, ground

disturbance and excavation within the two ballfields would occur during construction. Trenchless excavation would also occur across the open picnic area and pedestrian path along the south side of Colma Creek. No prehistoric or historic-period cultural resources were identified during the Phase 1 and Extended Phase 1 Archaeological Investigation of the proposed Project APE. The potential for encountering unknown human remains during Project construction is considered remote.

Existing regulations require that if human remains or cultural items defined by the Health and Safety Code, Section 7050.5, are inadvertently discovered, all work in the vicinity of the find would cease and the County Coroner would be contacted immediately. If the remains are found to be Native American as defined by Health and Safety Code, Section 7050.5, the coroner would contact the NAHC by telephone within 24 hours. The NAHC shall immediately notify the person it believes to be the most likely descendant as stipulated by California PRC, Section 5097.98. The most likely descendant(s) with the permission of the landowner or authorized representative, shall inspect the site of the discovered remains and recommend treatment regarding the remains and any associated grave goods. The most likely descendant shall complete their inspection and make their recommendations within 48 hours of notification by the NAHC.

Any discovery of human remains would be treated in accordance with Section 5097.98 of the Public Resources Code (PRC) and Section 7050.5 of the Health and Safety Code. Therefore, no further disturbance shall occur until the Coroner has made findings as to the origin and disposition of the remains pursuant to PRC 5097.98. Therefore, compliance with existing regulations and the implementation of mitigation measures would reduce potential impacts on cultural resources to less than significant.

Mitigation Measure CUL-2: Human Remains

> Pursuant to State Health and Safety Code §7050.5 (c) State PRC §5097.98, if human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the San Mateo County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission who shall notify the person believed to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. Additional work is not to take place in the immediate vicinity of the find, which shall be identified by the qualified archaeologist, until the identified appropriate actions have been implemented.

Implementation of MM CUL-2 would reduce potential impacts on cultural resources to less than significant.

VI. ENERGY

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

ENVIRONMENTAL SETTING

The City of South San Francisco adopted their Climate Action Plan (CAP) in 2014 (City of South San Francisco 2014a). The CAP identifies strategies and actions to reduce GHG emissions. Through the CAP, the City implements GHG reduction measures at both city-owned facilities and at private developments, including, but not limited to, the installation of solar facilities at City buildings; installation of bioswales in private development; enforcement of a construction and demolition waste recycling ordinance; implementation of a Travel Demand Management (TDM) program; and requirement for electrical car charging stations at City facilities.

IMPACT ANALYSIS

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

Less than Significant. The proposed Project would involve the installation of a water capture, treatment and infiltration facility that would result in water quality benefits, such as pollutant reduction, groundwater recharge, flood reduction, and the reuse of surface water to help the City meet local irrigation demands within Orange Memorial Park. During construction, energy consumption would be associated with primarily diesel and gasoline fuel consumption for the operation of construction equipment and for worker and haul trips. During operations, energy consumption would be limited to an irrigation pump proposed to be installed next to the water quality and disinfection shed. The consumption of energy resources during construction would be temporary and the installation of a new and energy-efficient irrigation pump is anticipated to function more effectively than the existing irrigation system within the Park. Therefore, implementation of the proposed Project would not result in potentially short- or long-term significant impacts due to wasteful, inefficient, or unnecessary consumption of energy resources. Instead, the proposed Project would improve water reuse and irrigation efficiency within Orange Memorial Park. While construction activities would involve diesel and gasoline fuel use for equipment and haul and commuter trips, overall consumption would be minimal and

temporary. For these reasons, the proposed Project's energy use would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than Significant. To ensure that development within the City is consistent with the CAP, the City has also prepared a Development Review Checklist for improvement projects and new development. While the proposed water capture facility is not considered a new development and most measures in the checklist are not applicable, the checklist was reviewed and the proposed Project is consistent with the City's CAP. Proposed mechanical equipment, such as the infiltration system and irrigation pump, would also include energy efficient models, asphalt or concrete removed during construction would be recycled, and on-site water that would be treated in the new cistern and infiltration system would be reused for irrigation. The proposed Project is also consistent with all state plans for energy efficiency, including the 2017 CARB Climate Change Scoping Plan, State of California Energy Plan, California Renewables Portfolio Standard Program, Clean Energy and Pollution Reduction Act of 2015, and State Alternative Fuels Plan. For these reasons, the proposed Project would not conflict with a state or local plan for renewable energy or energy efficiency, and impacts on energy would be less than significant.

VII. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey 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, as updated), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

The geologic setting of the Project site is based on existing reports and maps, including: the City's General Plan; U.S. Geological Survey (USGS) and California Geological Survey (CGS) maps; a project-specific Preliminary Geotechnical Feasibility Study (Fugro Consultants 2016); a project-specific Geotechnical Investigation (Cotton, Shires and Associates, Inc. 2018); and other technical documents (Appendices D and E).

The proposed Project site is located in the western Coast Ranges geomorphic province of California, in the Northern California metropolitan area of South San Francisco. The Coast Ranges are northwest-trending mountain ranges and valleys that subparallel the San Andreas Fault (California Geological Survey 2002). The concrete-lined Colma Creek runs down the center of the valley and borders the Project site to the northeast. Significant earthquakes have occurred in the region due to crustal movement along this system of subparallel fault zones through the San Francisco Bay Area and under the peninsula. The topography of the City of South San Francisco (City) is historically characterized by erosion, tectonism, marine and estuarine deposition, and placement fill and is comprised of flat to gently sloping areas with steep hillsides to the northern and western portions of the City of South San Francisco. Geological composition below the City consists of mostly developed soils covered by urban cut-and-fill overlying Late Mesozoic marine sedimentary rock of both the Great Valley and Franciscan basement complexes (California Geological Survey 2006; USGS 2006). The Project site is mapped as being underlain by alluvium (Cotton, Shires and Associates 2018).

As one of the most seismically active areas in the country, significant earthquakes have occurred in the San Francisco Bay Area. These earthquakes are generally believed to be triggered by crustal movement along a system of sub parallel fault zones that trend in a northwesterly direction through the San Francisco Bay Area and under the peninsula. The Project site is located in an area of high seismicity; approximately 30 faults in the San Francisco Bay Area that are considered capable of generating earthquakes, 11 of which are within 40 miles of the City. The Peninsula segment of the San Andreas Fault passes through the westernmost corner of the City, approximately two miles from the Project site (Cotton, Shires and Associates 2018). The Project vicinity is also located within an Alquist-Priolo Earthquake Fault Zone (California Geological Survey 2006). Other active

faults close to the site include the San Gregorio Fault, located 7.7 miles to the southwest, and the Hayward Fault, located 16.3 miles to the northeast. Seismic ground shaking associated with a large earthquake at any of these faults is considered to be a high potential hazard in the Project area. No active faults have been mapped through the subject property and the potential for surface faulting and ground rupture on the property is considered low.

The flat, upland portion of the City consists of orthents soil overlain with cut and fill, and have moderate potential for shrink-swell and erosion hazard (Natural Resources Conservation Service 2018). Orthents soil is characterized as well-drained, silty clay, which could potentially have expansive properties. These soil conditions would potentially amplify earthquake waves and ground shaking, and this area has a liquefaction risk of "high" (USGS 2018a). The Project site is flat (less than 15 percent slope) and natural grades in the area slope down towards Colma Creek. The Project site is not associated with a high risk of landslides, however, the potential for strong ground shaking to trigger a landslide that slides into the canal is considered to be moderate to high due to the relatively loose consistency of the adjacent soils (Cotton, Shires and Associates 2018). Borings drilled within the Project site encountered a 4.5 to 5-foot thick layer of medium to stiff clayey fill overlying loose, medium dense, dense, and very dense alluvial sands, and silty or clayey sands (Cotton, Shires and Associates 2018).

The soils underlying the Project site are loose to medium dense and are highly susceptible to liquefaction, and groundwater depths of 18 feet and deeper were encountered during the project-specific Geotechnical Investigation (Cotton, Shires and Associates 2018).

IMPACT ANALYSIS

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 California Geological Survey Special Publication 42.)

Less than Significant. The Project site is located in a known seismic zone, and the proposed water capture facility would most likely be exposed to an earthquake at some point during its 75-year design life. While the City of South San Francisco is located in an Alquist-Priolo Earthquake Fault Zone as mapped by the California Geological Survey, the site has been previously developed as a park, and no habitable structures are involved in the water capture facility (California Geological Survey 2002). While the Project site is near the San Andreas Fault, no active faults have been recognized on, or mapped through the Project site; the potential for surface faulting and ground rupture is considered low, and the site is relatively flat. For these reasons, potential impacts related to earthquake fault rupture would be less than significant.

ii) Strong seismic ground shaking?

Less than Significant with Mitigation. As discussed in Section VII, *Geology and Soils* (a)(i) above, the Project site is located in one of the most seismically active regions in the country. According to the project-specific Geotechnical Investigation (Cotton, Shires and Associates, Inc. 2018), peak ground accelerations of up to 0.87g to 0.88g (acceleration of gravity) should be anticipated at the site. The Project would be designed to comply with the California Building Code (CBC) and employ design standards that consider seismically active areas in order to safeguard the water capture facility against major structural failures or loss of life. Therefore, while the Project site would be subject to ground shaking during future seismic events (as are most structures within the Northern California area), the incorporation of proper engineering measures in accordance with existing regulations and building codes, the application of the engineering recommendations provided in the geological reports, and proposed Mitigation Measure GEO-1, would minimize risks to life and property. For these reasons, impacts would be less than significant with mitigation.

Mitigation Measure GEO-1: Structural Engineering Controls and Monitoring

> All earthwork and construction activities shall be monitored by a licensed engineer or professional geologist. The purpose of the monitoring is to assess soil conditions and confirm the appropriate engineered support systems are incorporated into the project design and installed correctly.

Implementation of MM GEO-1 would reduce potential impacts on geological resources to less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less than Significant with Mitigation. Soils that are most susceptible to liquefaction are loose, saturated, fine-grained sands and non-plastic silts and clays that are generally located within 50 feet of the ground surface. Seismic shaking has the potential to liquefy the soil in areas that contain saturated granular sediments of a specific grain size. The loss of shear strength in low to moderate relative density areas, along with shallow groundwater, can create an environment in which soils take on a "liquid" quality. This process typically occurs in poorly packed alluvial deposits, artificial fill, and areas with a shallow water table.

As stated above, Project site soils are loose to medium dense and are highly susceptible to liquefaction, and groundwater depths of 18 feet and deeper were encountered during the project-specific Geotechnical Investigation (Cotton, Shires and Associates 2018). Through the implementation of proposed mitigation (MM GEO-1) the exposure of people and structures to potential substantial adverse effects involving seismic-related ground failure and liquefaction would be minimized. Impacts on geological resources would be less than significant with mitigation.

iv) Landslides?

Less than Significant. The potential for strong ground shaking to trigger a landslide that fails and impacts the Colma Creek channel is considered to be moderate to high for the

areas immediately adjacent to the concrete channel walls. Construction of the proposed Project involves excavation for the underground storage reservoir and an infiltration chamber approximately 60 feet away from the concrete channel walls. Construction of the underground storage reservoir, which contains an infiltration chamber, would likely remove approximately 7 to 15.5 feet of the loose soil that is susceptible to mobilizing where the water capture structures are installed, which should mitigate the high risk of landslides to the structures (Cotton, Shires and Associates 2018). In the immediate vicinity of the Project site, the ground slope is too shallow to cause an event of any significance, and the proximity to higher risk zones is negligible. The Project area is also comprised of level to gradually sloping streets in a heavily urban area. For these reasons, any impact associated with a seismically induced landside of the concrete walls that line Colma Creek in this area would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant. The majority of the ground surface on the south side of the Park consists of one to four feet of imported fill material on top of native soil. Construction of the proposed water capture system (specifically the installation of the underground storage reservoir) would involve the excavation of one to four feet of imported fill material on top of an estimated five to eight feet of native soil for a total of 10 to 12 feet of excavated material. This would result in the excavation of 4,800 to 12,000 cubic yards of soil during construction. The activities would potentially create a potential for erosion during construction. Artificial fill, however, would not be placed on the site, except to backfill erosion (Cotton, Shires and Associates 2018). Given the majority of the construction area is flat and previously disturbed, the potential for soil erosion and loss of topsoil is low. While soil erosion could be caused by either water or wind and could be exacerbated during rain events during construction, compliance with BAAQMD fugitive dust requirements would minimize wind erosion. Compliance with the City's Municipal Code, Section 14.04.180 Reduction of Pollutants in Stormwater would require effective erosion and sediment controls and ensure soils are stabilized during construction. Similarly, the implementation of the San Mateo Countywide Water Pollution Prevention Program's Construction Best Management Practices (BMPs) would ensure exposed soils are stabilized during excavation. BMPs required under a NPDES permit, as well as the implementation of a Storm Water Pollution Prevention Plan (SWPPP) would further reduce soil erosion. For these reasons, impacts related to soil erosion and the loss of topsoil would be less than significant.

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

Less than Significant with Mitigation. According to the City's General Plan EIR, soils in the flat and lowland eastern portion of the City that are composed of Bay mud overlain with fill have a high shrink-swell potential and high water table. These soil conditions can intensify ground shaking and are subject to liquefaction. The proposed Project is located on soils that have been found to be unstable with the potential to result in on- or off-site landslides, liquefaction, or collapse. Project geotechnical studies, however, determined that

these soils would not be destabilized as a result of the Project. The majority of the site is also composed of primarily artificial fill soils. Fugro Consultants, Inc. performed a preliminary geotechnical feasibility study for the Proposed project in December 2016 (Appendix C). The purpose of the study was to assess geotechnical and geologic site conditions based on subsurface data, existing geologic and seismic hazard maps, and other available information. The study also assessed three exploratory borings (between 20 and 25 deep), three field percolation tests (15 feet deep), and four soil samples from each boring for a total of 12 soil samples. In 2018, Cotton, Shires, and Associates, Inc. conducted a Geotechnical Investigation for the proposed Project (Appendix D). The purpose of the geotechnical investigation was to characterize the geotechnical conditions surrounding and underlying the Project site and provide recommendations regarding geotechnical hazards.

Based on the two investigations, the Project site is generally sited over native, poorly-graded sands with clay and silty sands with clay over fat clay and sand (Fugro Consultants, Inc. 2016). The three borings consisted of poorly-graded soil on top of between 17 to 20 feet of medium dense to dense, but poorly-graded sands combined with silt (Fugro Consultants, Inc. 2016). Groundwater was encountered within the ballfields at 18 feet bgs (Cotton Shires, and Associates 2018). There is also strong potential for ground shaking at the site to trigger a landslide that fails into the canal due to the loose consistency of the adjacent soils (Cotton Shires, & Associates 2018). This potential is moderate to high because there is no information on the canal wall design, and whether the concrete channel walls were designed to resist landslide forces. The installation of an underground storage reservoir would remove approximately 7 to 15.5 feet of loose soil currently susceptible to movement (Cotton Shires & Associates 2018). As a result, the installation of the underground storage reservoir would potentially minimize the high risk of landslides and lateral spreading to the existing canal.

As discussed in Section VII, *Geology and Soils* (a)(iii), the site contains a high potential for seismically induced liquefaction (Cotton Shires, and Associates 2018). The Project site has been mapped as alluvium consisting of sand and silt, but locally containing clay, gravel, and boulders. According to the Geotechnical Report, liquefaction would potentially occur at the Project site ranging from five inches in the northern portion of the Park to nine inches near the ballfields (Cotton Shires & Associates 2018). As outlined in MM GEO-1, the final engineering plans and specifications would be reviewed and approved by a registered geotechnical engineer to ensure that all applicable geotechnical recommendations are incorporated into the project designs. As a result, the potential for unstable soils in the area after construction of the new improvements would be less than significant with the implementation of mitigation.

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

Less than Significant. The soils and subsurface materials present on the Project site, specifically the roughly 6-foot thick clay layer encountered between 15 and 25 feet, are potentially highly expansive (Cotton, Shires and Associates 2018). Highly expansive soils could be subject to volume changes due to seasonal fluctuations in moisture content.

Provided that the bottom of the proposed water capture facility is greater than three feet above the clay layer and that the moisture content remains constant (close to saturated), the expansive soils would not adversely impact the water capture facility (Cotton, Shires and Associates 2018). For these reasons, impacts associated with expansive soils would be less than significant.

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

No Impact. The proposed Project would involve the construction of a water capture facility that consists of buried, reinforced concrete, prefabricated infiltration chambers, and a 24-inch subterranean stormwater pipe. No septic tanks would be installed in conjunction with this Project, nor would the Project require a connection to the City's sewer system. Therefore, no impacts would occur from soils incapable of supporting septic tanks.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation. While the majority of the Project site has been previously disturbed as a developed recreational park, ground disturbance and excavation within the two ballfields and adjacent to the picnic areas would occur during construction. Excavation in these areas would potentially uncover unique paleontological resources or geologic features. Based on the results of borings from the Geotechnical Investigation and the geoprobes conducted during the Extended Phase 1 Archaeological Survey, the likelihood of encountering unique paleontological resources or geologic features is low. The potential uncovering such resources during excavation remains. The implementation of MM CUL-1 requires that if historic or cultural resources are encountered during site grading or excavation activities, all work shall be halted within 100 feet of the discovery area and the contractor shall notify the City. The implementation of this measure also applies to paleontological resources and geologic features, thereby minimizing potential impacts to such resources. Therefore, impacts to unique paleontological resources or unique geologic features would be less than significant with mitigation.

VIII. GREENHOUSE GAS EMISSIONS

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

ENVIRONMENTAL SETTING

Global climate change can be measured by changes in wind patterns, storms, precipitation, and temperature. Scientific consensus has identified human-related emissions of greenhouse gases (GHGs) above natural levels is a significant contributor to global climate change. GHGs are substances that trap heat in the atmosphere and regulate the Earth's temperature, and include water vapor, CO_2, methane (CH_4), nitrous oxide (N_2O), ground level ozone, and fluorinated gases, such as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and halons. The potential impacts of climate change include severe weather patterns, flooding, reduced quality and availability of water, sea level rise, and beach erosion. Primary activities associated with GHG emissions include transportation, utilities (e.g., power generation and transport), industry, manufacturing, agriculture, and residential. End-use sector sources of GHG emissions in California are as follows: transportation (41 percent);industry (23 percent); electricity generation (16 percent); agriculture and forestry (8 percent); residential (7 percent); and commercial (5 percent) (CARB 2018).

Assembly Bill (AB) 32 is a California State Law that establishes a comprehensive program to reduce GHG emissions from all sources throughout the state. AB 32 requires CARB to develop regulations and market mechanisms to reduce California's GHG emissions to 1990 levels by 2020, representing a 25 percent reduction statewide, with mandatory caps beginning in 2012 for significant emissions sources.

GHG emissions contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, an individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution. As such, impacts related to emissions of GHG are inherently considered cumulative impacts. Estimated GHG emissions attributable to future development in the City of South San Francisco are primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste.

GHG Emissions Threshold

At the regional level, the BAAQMD has proposed the following thresholds of significance for operational-related GHG emissions as of May 2017:

- For land use development projects, the threshold is compliance with a qualified GHG Reduction Strategy; or annual emissions less than 1,100 metric tons per year (MT/year) of CO2e; or 4.6 MT CO2e/SP/year (residents + employees). Land use development projects include residential, commercial, industrial, and public land uses and facilities.
- For stationary-source projects, the threshold is 10,000 metric tons per year (MT/year) of CO2e. Stationary-source projects include land uses that would accommodate processes and equipment that emit GHG emissions and would require an Air District permit to operate.

If annual emissions of operational-related GHGs exceed these levels, the proposed project would result in a cumulatively significant impact. The BAAQMD has not yet adopted a threshold of significance for construction-related GHG emissions. However, Section 8.2 of the BAAQMD *CEQA Air Quality Guidelines* recommends that the Lead Agency quantify and disclose GHG emissions that would occur during construction and make a determination of the significance of the construction-related GHG impacts in relation to meeting Assembly Bill 32 GHG reduction goals. The Lead Agency is also encouraged to incorporate BMPs to reduce GHG emissions during construction as applicable. BMPs include but are not limited to: using alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15 percent of the fleet; using local building materials of at least 10 percent; and recycling or reusing at least 50 percent of construction waste or demolition materials (BAAQMD 2017b).

The City of South San Francisco adopted a CAP in 2014 that identifies strategies and actions to reduce GHG emissions. The City has and continues to implement GHG reduction measures associated with both City-owned facilities and private development. These GHG reduction measures include, but are not limited to: the installation of solar facilities at City buildings; requiring bioswales in private development; adopting and enforcing a construction and demolition waste recycling ordinance; adopting and implementing a TDM program; and providing electrical car charging stations at City facilities.

IMPACT ANALYSIS

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

Less than Significant. The primary source of proposed Project construction GHG emissions would be from mobile sources such as worker trips and from haul trips during excavation. Neither the City of South San Francisco nor the BAAQMD has adopted a threshold of significance for construction-related GHG emissions. Project operational GHG emissions would be limited to the long-term operation of a new irrigation pump. The BAAQMD operational, long-term GHG emission thresholds of significance for stationary source projects is more than 10,000 metric tons per year carbon dioxide equivalent units (MTCO2e/year). If a project generates GHG emissions above the threshold level, the project would be considered to generate significant GHG emissions and conflict with applicable GHG regulations. Given that the proposed Project operations would be limited to the electrical operation of an irrigation pump, annual operation GHG emissions are calculated to be 4.56 MTCO2e/year, well below the 10,000 MTCO2e/year threshold of significance.

Annual short-term construction GHG emissions would be 210.37 MTCO2e/year and would not significantly contribute to climate change. For these reasons, the proposed Project impacts associated with GHG emissions would be less than significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant. The BAAQMD 2017 Clean Air Plan outlines the goals and objectives to reduce Bay Area GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050, consistent with the GHG reduction targets adopted by the state

of California. The 2017 Clean Air Plan includes the following measures to reduce emissions from construction and farming equipment:

- Use various strategies to reduce emissions from construction and farming equipment (e.g., incentives for equipment upgrades and/ or encourage the use of renewable electricity and fuels).
- Provide incentives for the early deployment of electric, Tier 3 and 4 off-road engines used in construction, freight and farming equipment.
- Support field demonstrations of advanced technology for off-road engines and hybrid drive trains.
- Work with CARB, the California Energy Commission (CEC), and others to develop more fuel-efficient off-road engines and drive-trains; and
- Work with local communities, contractors, farmers, and developers to encourage the use of renewable electricity and renewable fuels, such as biodiesel from local crops and waste fats and oils, in applicable equipment.

CARB's *AB 32 Scoping Plan* (2008) has several measures to reduce emissions from transportation fuels, which would indirectly reduce emissions from construction equipment. These include the Low Carbon Fuel Standard (LCFS), which would reduce GHG emissions by minimizing the full fuel-cycle carbon intensity of transportation fuels used in California. The *2017 Scoping Plan Update*, which builds upon the initial Scoping Plan, contains new strategies and recommendations to reduce GHG to reach the State's 2030 GHG emissions reduction target (CARB 2017). California's overall plan for climate adaptation is also summarized in *Safeguarding California Plan: 2018 Update*. This plan provides policy guidance associated with climate risks in nine sectors in California and provides realistic sector-specific recommendations (CNRA 2018).

The various plans, policies, and regulations at the state and local level do not directly require the reduction of GHG emissions from construction equipment; however, emissions would be indirectly reduced through programs like the LCFS. Several rules adopted to reduce emissions of non-GHGs, such as CARB's In-Use Off-Road Diesel Vehicle Regulation (13 CCR 2449), could also reduce GHG emissions. Since the construction equipment would operate in compliance with all applicable regulations for off-road equipment, the proposed Project would not conflict with any plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Proposed mechanical equipment, such as the infiltration system monitors and irrigation pump would include energy efficient models. The proposed Project would reduce water usage through the reuse of captured water in the underground storage reservoir for irrigation demands in the Park. For these reasons, the proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions and impacts would be less than significant.

IX. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or 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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

***Photo 8**. The Project vicinity consists of a City-owned parcel north of Colma Creek that is current vacant and was historically used by as a greenhouse for an flower nursery.*

The Project vicinity is characterized as a developed, urban area with predominantly residential, commercial, and public land uses (Photo 8). The vicinity has historically supported recreational and commercial uses, including several greenhouses utilized by carnation-growing company Mazzanti Carnations, Inc. within the northern portion of Orange Memorial Park. According to the State of California Department of Toxic Substances Control (DTSC) EnviroStor Database compliant with Government Code Section 65962.5, there are no active hazardous waste clean-up sites within the vicinity of the proposed Project. The nearest known hazardous waste cleanup site is the Mantegani site located at 735 Commercial Avenue (approximately 890 feet north of the Project site). This site was previously utilized as an ornamental flower nursery, where potential soil contaminants included chemicals typically associated with pesticides and herbicides. The greenhouse buildings were demolished and removed from the property, and voluntary cleanup actions were completed and certified as of February 20, 2007 (DTSC 2018). The next closest hazardous waste clean-up site is the Morena Trust site (111 Starlite Street and 437, 439, 441, and 447 Canal Street) located approximately 0.55 miles southeast of the Project site. The site is an active voluntary cleanup site as of July 5, 2016 and involves clean-up of contaminants associated with former dry cleaning and laundry services, as well as a former ceramics manufacturing business.

Testing performed in 2010 and 2011 within the portion of the Project site south of Colma Creek that was first developed between 1956 and 1965 as a carnation nursery identified elevated concentrations of organochlorine pesticides within the soil at depths between 1.5 and 4 feet bgs. While a two-foot thick soil cap was reportedly placed over this portion of the site in 2011, additional testing was completed by Fugro Consultants, Inc. in 2016 to evaluate the soils within the Project site for the presence of contaminants above and below the proposed location of the underground storage reservoir (Fugro Consultants, Inc. 2016). While no PCBs, volatile organic compounds (VOCs), or asbestos were detected in any of the soils analyzed, organochlorine pesticides were detected in the soil samples collected at depths between 2 and 3.5 feet bgs. For these soil samples, analyses detected concentrations of DDD (at 0.0022 milligrams per kilogram [mg/kg], DDE (up to 0.47 mg/kg), DDT (up to 0.38 mg/kg), and dieldrin (up to 0.17 mg/kg). All these detected concentrations were at or below respective ESLs for commercial shallow soil exposure and any soil depth exposures for construction workers (Fugro Consultant, Inc. 2016).

Concentrations of various metals were also detected in the samples collected above and below the proposed location of the underground storage reservoir, but below the Total Threshold Limit Concentrations (TTLCs) and the San Francisco Bay RWQCB's Environmental Screening Levels (ESLs) for commercial/industrial soil exposure and ESLs for Any Land Use/Any Soil Depth Exposure (Construction Worker), with the exception of

arsenic. Analyses detected arsenic in the soils above the proposed location of the underground storage reservoir from 1.0 mg/kg to 3.0 mg/kg for all samples. These sample levels exceed the commercial shallow soil exposure ESL of 0.31 mg/kg and the Any Land Use/Any Soil Depth Exposure for a Construction Worker ESL of 0.94 mg/kg. Throughout California arsenic levels have been found higher than ESLs due to historic chemical usage, as well as its presence in local bedrock materials that have been used as import fill (Fugro Consultants, Inc. 2016). The concentrations detected did not appear to be related to a source release and are most likely associated with background arsenic concentrations (Fugro Consultants, Inc. 2016).

The closest public schools to the Project site are Los Cerritos Elementary School and South San Francisco High School, located approximately 600 feet (0.06 miles) and 1,120 feet (0.21 miles) to the south, respectively. The proposed Project site is not located in the vicinity of any private airstrip.

The nearest airport to the Project vicinity is the San Francisco International Airport (SFO), located approximately 2.1 miles to the southeast. The Project site is located within the SFO Airport Land Use Compatibility Plan (ALUCP) Airport Influence Area (AIA) B, which is based on a combination of the outer boundaries of the noise compatibility and airport safety zones (C/CAG 2012).

The City of South San Francisco Fire Department manages and maintains emergency plans and emergency preparedness training to City staff and community members. The City abides by the County of San Mateo Emergency Operation Plan (EOP) under jurisdiction of the San Mateo County Office of Emergency Services (OES), which administers policies and procedures involving emergency preparedness, response, recovery and mitigation. SMCReady and SMCAlert are the governmental entities that provide disaster information and alert notifications to the City. The City is also under authority of the San Francisco Bay Area Regional Emergency Coordination Plan (RECP), which provides an all-hazard framework for collaboration and coordination during emergencies in the San Francisco Bay Area (UASI 2008). According to the RECP, the California Highway Patrol (CHP) is responsible for designating evacuation routes and strategies for traffic control and law enforcement in the case of an emergency.

The Project site is located in an entirely urbanized area, outside of any fire hazard severity zones (Photo 8). The nearest wildlands and areas of potential wildfire risk are located approximately one mile to the southeast, where there is a local responsibility area (LRA) with a very high fire hazard severity zone (VHFHSZ)(Cal Fire 2007).

IMPACT ANALYSIS

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

Less than Significant with Mitigation. A hazardous material is defined as any material that due to its quantity, concentration, physical or chemical characteristics, poses a significant present or potential hazard to human health or to the environment if released. Hazardous materials include, but are not limited to, inorganic and organic chemicals, solvents, mercury, lead, asbestos, paints, cleansers, or pesticides. With the exception of the

organochlorine pesticides and arsenic levels detected in the soil samples, known hazardous materials are not present on the proposed Project site. Construction would involve excavation, and grading, and the movement of soils from these activities (e.g., use of heavy machinery, storage of fuel for machinery, potential dust emissions) could cause a temporary impact to the public or the environment. During construction, workers could be exposed to hazardous materials such as fuels, oils, solvents, and other chemicals if these materials were accidentally spilled or released. Short-term soil exposure would potentially also affect construction workers due to the presence of the low levels of organochlorine pesticides and arsenic detected in the soil samples.

All construction activities would be required to comply with applicable policies, standards, and regulations in order to ensure there are no hazards related to the routine use, disposal, transport, or accidental release of hazardous materials (California Occupational Safety and Health Administration [OSHA] requirements, Title 8 and 22 of the Code of California Regulations). All excavated fill and native soil material would be disposed in accordance with applicable codes and regulations and the transport and disposal of these materials is not expected to create a significant hazard to construction workers or the nearby community. While arsenic levels were above the Commercial Shallow Soil exposure ESL and Any Land Use/Any Soil Depth Exposure for a Construction Worker ESL, throughout California arsenic levels have been found higher than ESLs due to historic chemical usage and from its presence in local bedrock materials, which have been used as import fill (Fugro Consultants, Inc. 2016). The concentrations detected did not appear to be related to a source release and are most likely associated with background arsenic concentrations (Fugro Consultants, Inc. 2016).

In order to minimize potential impacts to construction workers and the public, a Hazardous Materials Contingency Plan (HMCP) would be developed prior to the start of construction. The HMCP would require standard federal, state, and local construction measures are followed for hazardous materials and the removal of onsite debris. The HMCP would also include the preparation of a Waste Management Plan (WMP) and a Site Mitigation Plan (SMP). The WMP would indicate the intended salvage and recycling facilities for all construction and demolition debris from the proposed Project as required by the City of South San Francisco Municipal Code Section 15.60. The WMP would also reduce potential impacts associated with hazardous materials during construction. The SMP focuses on site operations. SMP implementation would mitigate potential exposure due to dust emissions or contact with unsaturated soils containing detected organochlorines and arsenic and provide standard construction guidelines for dust control and routine soil handling procedures. The SMP would also address potential risk to construction workers due to identified site contaminants, and include provisions for managing soil as part of construction, including, but not limited to excavating, erosion and dust control measures, and transporting and stockpiling waste.

During project operation, the proposed Project would include the storage and disposal of accumulated trash debris, gross solids, and other particles that would be collected within the water capture facility as part of the pretreatment process. The collected debris is not anticipated to require hazardous waste disposal as part of routine maintenance. All other maintenance activities would use small quantities of common disinfection solutions and cleaning solvents needed for the up-keep of the diversion equipment; the use of these

materials would not be a health risk when used in accordance with manufacturer specifications. In summary, the proposed Project has the potential to temporarily expose construction workers due to the presence of elevated arsenic levels. Therefore, the implementation of a HMCP that incorporates waste management and site mitigation procedures is necessary to reduce potential impacts. Impacts would be less than significant with mitigation.

Mitigation Measure HAZ-1: Hazardous Materials Contingency Plan

The construction contractor (as required by the contract specifications) shall develop a HMCP that includes standard construction measures required by federal, state, and local policies for the handling of potential hazardous materials and removal of on-site debris. The HMCP shall include the implementation of a WMP for the management of all construction waste, and a SMP to minimize construction worker's exposure to dust emissions and emissions that have the potential to contain hazardous concentrations of arsenic. At a minimum, this plan shall include the following:

a) If contaminated soils or other hazardous materials are encountered during any soil moving operation during construction, the HMCP shall be implemented.
b) Instruct workers on recognition and reporting of materials that may be hazardous.
c) Minimize delays by continuing performance of the work in areas not affected by hazardous materials operations.
d) Identify and contact subcontractors and licensed personnel qualified to undertake storage, removal, transportation, disposal, and other remedial work required by, and in accordance with, laws and regulations.
e) Forward to engineer, copies of reports, permits, receipts, and other documentation related to remedial work.
f) Notify such agencies as are required to be notified by laws and regulations within the time stipulated by such laws and regulations.
g) File requests for adjustments to contract time and contract price due to the finding of hazardous materials in the work site in accordance with conditions of contract.

Implementation of MM HAZ-1 would reduce potential impacts on hazardous materials to less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less than Significant. Construction and operation activities would not 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. The proposed Project would involve the use of some hazardous and flammable substances during the construction phase. These substances could include vehicle fuels and oils in the operation of heavy equipment for site grading and project construction. Construction

vehicles onsite would potentially require routine maintenance or repair that could involve the use of oil, diesel fuel, transmission fluid, solvents, or other materials. The materials would be used in small quantities and when used in accordance with manufacturer specifications they would not pose a significant hazard to the public or environment.

Operation activities associated with the proposed Project would not involve the use of acutely hazardous materials or waste, and the limited use of any hazardous materials would be contained, stored, and used in accordance with manufacturer specifications. The limited use of hazardous materials, such as disinfection solutions and common cleaning solvents, would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials. For these reasons, no reasonably foreseeable upset or accident conditions that could release hazardous materials into the environment are anticipated to occur during construction or operation. Impacts on hazardous materials would be less than significant.

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

Less than Significant. The closest public schools to the Project site are Los Cerritos Elementary School and South San Francisco High School, located approximately 600 feet (0.06 miles) and 1,120 feet (0.21 miles) to the south, respectively. Construction equipment and operation equipment such as the irrigation pump would generate air contaminant emissions. Based on the air quality analysis, construction and operation emissions would not exceed BAAQMD thresholds and the levels generated are not considered hazardous. While construction would involve the excavation and transport of fill and native soil material and other construction-related debris, all of these materials would be transported and disposed in accordance with applicable codes and regulations. Compliance with BAAQMD fugitive dust requirements would minimize fugitive dust emissions during excavation activities. Any hazardous materials used during operations would consist of small amounts on common cleaning solutions that would be handled according to manufacturer specifications. As a result, impacts from the Project on surrounding schools in regard to hazardous materials would be less than significant.

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

No Impact. The proposed Project site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. According to the State of California DTSC EnviroStor Database, the nearest known hazardous waste cleanup site is the Mantegani site located at 735 Commercial Avenue (approximately 890 feet north of the Project site). This site was previously utilized as an ornamental flower nursery, where potential soil contaminants included chemicals typically associated with pesticides and herbicides. The greenhouse buildings were demolished and removed from the property, and voluntary cleanup actions were completed and certified as of February 20, 2007 (DTSC

2018). Therefore, no impact on hazardous materials would result from implementation of the proposed Project.

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

Less than Significant. The nearest airport to the Project is the San Francisco International Airport (SFO), located approximately 2.1 miles to the southeast. The Project site is located within the SFO ALUCP Airport Influence Area (AIA) B, which is based on a combination of the outer boundaries of the noise compatibility and airport safety zones (C/CAG 2012). As a water capture facility, the proposed Project would not pose significant hazards for people residing or working in the area. Therefore, impacts to safety associated with working near the airport would be less than significant.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant. Throughout the duration of construction, Memorial Drive and West Orange Avenue would not be closed or partially closed to traffic except for a lane closure adjacent to the Park on a few occasions. At least one-way traffic would be maintained along Memorial Drive to ensure the multi-family residents would access the Park Lane Apartment complex. Access along Tennis Drive and Eucalyptus Avenue would potentially be limited if excavated soils are temporarily stockpiled in the vacant lot north of Colma Creek. Both streets would maintain one-way traffic.

While the proposed Project would result in additional worker and haul trips during construction, these trips would be temporary and the operation of the water capture facility would not impair or physically interfere with an adopted emergency response plan, or a local, state, or federal agency's emergency evacuation plan. All on-street construction activities, specifically those on Memorial Drive, would need to maintain access standards to allow access to the Park Lane Apartments and to ensure adequate emergency access. Material and equipment haul trucks would follow designated truck routes to and from the Project site. For these reasons, impacts on adopted emergency response and emergency evacuation plans would be temporary and less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No Impact. The Project site is not located in an area susceptible to wildfires as it is in an urban setting and general lacks combustible native vegetation. The Project site is regularly maintained by City Park and Recreation staff and is outside of any fire hazard severity zones. The nearest wildlands and areas of potential wildfire risk are located approximately one mile to the southeast within a LRA with a VHFHSZ (Cal Fire 2007). Therefore, there is no significant risk of loss, injury, or death involving wildfires, and no public hazards impacts would occur.

X. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements 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 on- or offsite erosion or siltation;	☐	☐	☒	☐
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The proposed Project is located along Colma Creek within the Colma Creek Watershed, a sub-watershed of the San Francisco Bay Basin. The Colma Creek Watershed is formed by natural mountain ridge boundaries surrounding a lower valley floor, and has a drainage

area of 15.8 square miles from its headwaters in the San Bruno Mountains to its discharge in the San Francisco Bay (Coastal Conservancy 2015). The western border of the basin is the San Andreas Fault, while the northern edge terminates at the San Bruno Mountain ridge and the south is bounded by Interstate 380. The Colma Creek Watershed collects runoff from the urbanized areas of Daly City, Colma, San Bruno and South San Francisco. Colma Creek is approximately 8 miles long, most of which is channelized or conveyed underground to allow for urban development (City of Daly City 2012). The Colma Creek Watershed is under jurisdiction of the San Francisco Bay RWQCB. The RWQCB is responsible for the Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin, which establishes water quality objectives to regulate pollution and control activities that can adversely affect aquatic systems (RWQCB 2017). The State Water Resources Control Board (SWRCB) and RWQCB issue NPDES permits to regulate specific pollutant discharges. Stormwater discharges associated with construction and operation of the proposed Project are regulated by the joint City and SMCWPPP (City of South San Francisco 1999). The SMCWPPP operates under the San Francisco Bay Municipal Regional Stormwater NPDES Permit (MRP). The MRP is a comprehensive permit that issues waste discharge requirements related to construction sites, industrial sites, illegal discharges and illicit connections, new development, and operations throughout municipal separate storm sewer systems (MS4s) (RWQCB 2009). The RWQCB and MRP stipulate that construction activities disturbing one acre or more of soil are required to obtain individual NPDES permits for storm water discharges and implement a SWPPP for the site.

The City of South San Francisco is largely developed with a high proportion of impermeable surfaces such as roads, roofs, and parking lots, which results in significant runoff with very little ground infiltration. Stormwater and irrigation runoff is collected in the City's storm system and diverted to Colma Creek or the San Francisco Bay (City of South San Francisco 1999). As a result, Colma Creek is particularly susceptible to nonpoint sources of pollution through runoff including sediment, oil, debris, heavy metals, hydrocarbons, herbicides and pesticides, and fertilizers (City of South San Francisco 1999).

The proposed Project would take place along the Colma Creek channel, which is defined by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) as a Zone A Channel Confined flood zone. According to the FIRM for the City of South San Francisco, map number 06081C0043E, the 35 to 40-foot wide creek channel divides Orange Memorial Park into two floodway zones. The northern half of Orange Memorial Park and a portion of the baseball field in the southern portion of the site adjacent to West Orange Avenue are in Zone AE, which is subject to flooding inundation by a one percent annual flood event (floods with a 1 in 100 chance of occurring in a given year). The southern half of Orange Memorial Park is in Zone X, which is outside of the 0.2 percent annual chance floodplain (floods with a 1 in 500 chance of occurring in a given year).

The Project site is not within a tsunami inundation zone or a low-lying area susceptible to sea level rise (Department of Conservation 2009; NOAA 2017).

IMPACT ANALYSIS

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than Significant. The Clean Water Act prohibits the discharge of pollutants to navigable waters from point and non-point sources unless authorized by a NPDES General Construction Permit. The SWRCB and RWQCB issue NPDES permits for the City of South San Francisco to regulate specific pollutant discharges. Stormwater discharges associated with construction and operation of the proposed Project are regulated by the joint City and SMCWPPP. The SMCWPPP operates under the San Francisco Bay Municipal Regional Stormwater NPDES Permit (MRP). The MRP is a comprehensive permit that issues waste discharge requirements related to construction sites, industrial sites, illegal discharges and illicit connections, new development, and operations throughout municipal separate storm sewer systems (MS4).

The RWQCB and MRP stipulate that construction activities disturbing one acre or more of soil are required to obtain individual NPDES General Construction Permits for storm water discharges and implement a SWPPP during construction. The MRP also regulates stormwater discharges in San Mateo County. The proposed water capture facility is a regional project designed to help San Mateo County permittees reduce pollutants, such as PCBs, mercury, and trash discharges into the San Francisco Bay. According to the MRP, these reductions would be accomplished through the implementation of stormwater capture, treatment, and infiltration projects and associated green infrastructure improvements, such as the proposed water capture facility.

Construction activity including site grading, excavation, and the installation of an underground water storage reservoir would result in temporary soil erosion that could temporarily affect water quality. The proposed Project would also disturb greater than one acre of land with the Park and must obtain an individual NPDES General Construction Permit for the stormwater discharges during construction and implement a SWPPP for the site. The SWPPP would include the implementation of erosion and sediment BMPs, monitoring, and reporting that would reduce surface and groundwater quality impacts. The Project site would also be stabilized, re-graded, and restored, thereby reducing any future water quality impacts. The long-term objective of the regional water quality improvement Project is to divert dry- and wet-weather runoff from the City of South San Francisco, such that there is a net benefit to both stormwater runoff and receiving water quality in the San Francisco Bay. Improved water quality in comparison to existing conditions would also be considered a beneficial impact of the proposed Project. Therefore, water quality impacts associated with the water capture facility would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant. The proposed Project would not use groundwater nor would it deplete groundwater supplies. It is designed to reduce the Park's demand for non-potable water by capturing and treating storm water to meet the Park's irrigation needs. The

proposed Project is also designed to recharge groundwater within the underground storage reservoir and infiltration chamber. As a result, the installation of the water capture system would not constitute a significant increase in the impervious cover in the vicinity of the Project site and groundwater recharge would not be affected. Project implementation would result in a net benefit to receiving water quality in the San Francisco Bay and groundwater recharge in the West Side Ground Water Basin. Improved groundwater quality in comparison to existing conditions would also be considered a beneficial impact of the proposed Project. Therefore, groundwater resources impacts would be less than significant.

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:

Less than Significant. The proposed Project as a water capture facility would not entail any development or construction that would alter current drainage patterns at the Project site or in the Park. The proposed Project would install a drop inlet and underground diversion structure within the Colma Creek channel. This structure and the modifications to bottom of the concrete channel (i.e. ramp cuts to divert water flows) would not measure more than 520 square feet (0.012 acres) within the concrete bottom of the channel. While the water capture facility would redirect and treat stormwater runoff within the underground water reservoir cistern and infiltration chamber, the local drainage pattern would remain the same as it exists today. The proposed Project would not construct any new drainage channels or features, other than the drop inlet structure that spans Colma Creek. The proposed water capture facility would divert approximately five percent of the water flows from Colma Creek through the water capture facility within the southern portion of the Park back to Colma Creek via an outfall pipe situated roughly 1,000 feet downstream of the drop inlet and diversion structure. Proposed construction would not cause substantial erosion or siltation; the water capture facility is designed to reduce downstream localized flooding by increasing groundwater recharge within the Project area and meet TMDL requirements, thereby reducing polluted stormwater runoff to the San Francisco Bay. As a result, construction and operation of the proposed Project would have a less than significant impact on existing drainage patterns in the area.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. As described in the City of South San Francisco General Plan, the City is located in one of the most seismically active regions in the country. There are approximately 30 known faults in the San Francisco Bay Area that are considered capable of generating earthquakes (City of South San Francisco, 1999a). According to the Association of Bay Area Governments (ABAG) and USFS, the alluvial lowlands surrounding Colma Creek between Orange and South Linden Avenues have been determined to be susceptible to extremely high or very high levels of wave amplification (City of South San Francisco, 1999a). Ground shaking related to earthquakes can cause tsunami (or tidal

waves) and seiches in the San Francisco Bay. Since Colma Creek is located in a low-lying area near the San Francisco Bay, there is a possibility for tsunami or seiche inundation. The Project site is not within a tsunami inundation zone or a low-lying area susceptible to sea level rise (Department of Conservation 2009; NOAA 2017), and the proposed Project would not involve the construction of structures for human occupancy. The proposed water capture facility would be designed in accordance with the CBC requirements. The majority of the proposed Project would also be installed underground. Therefore, no pollutant releases due to Project inundation associated with flood hazards, tsunamis, or seiches are expected and no impacts on hydrology would occur.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. The RWQCB is responsible for the Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin, which establishes water quality objectives to regulate pollution and control activities that can adversely affect aquatic systems (RWQCB 2017). Under the CWA, a water body is placed on the Section 303(d) list when the receiving water does not meet applicable water quality standards listed in the Basin Plan and does not support the beneficial uses associated with the applicable water quality standard. Once placed on the 303(d) list, the water body is subject to the development of a TMDL. The San Francisco Bay RWQCB has developed TMDLs for several pollutants originating from urban and stormwater runoff in the watersheds throughout San Mateo County. Colma Creek is among the impaired water bodies with TMDLs for PCBs, mercury, and trash reductions. As a result, Colma Creek has been identified for water quality improvements in the MRP and San Mateo County SRP.

The proposed Project was identified in the San Mateo County SRP as a high-priority regional project that can capture water from a large multi-jurisdictional drainage area. The proposed Project co-locates stormwater diversion and treatment facilities in Orange Memorial Park with other planned and future capital improvement projects. The proposed Project would provide water quality improvements to meet the NPDES requirements of the San Francisco Bay MRP. Implementation of the water capture facility would address multiple water quality targets outlined in the MRP, including a reduction in pollutant discharges of PCBs and mercury to San Francisco Bay to comply with TMDL requirements, as well as trash discharge reductions. For these reasons, the proposed Project would not conflict or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. Implementation of the proposed Project would result in net benefits to receiving water quality in the San Francisco Bay and groundwater recharge in the West Side Ground Water Basin. Improved groundwater quality in comparison to existing conditions would also be considered a beneficial hydrological impact of the proposed Project and no adverse impacts would occur.

XI. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) 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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The proposed Project is located in a developed urban area along Colma Creek in the City of South San Francisco. The Project site is located within Orange Memorial Park that is designated and zoned as Park and Recreation (PR) under the City's General Plan and Zoning Ordinance. Land uses in the Project vicinity predominantly consist of residential areas zoned as Low, Medium, and High Density Residential (RL-8, RM-15, and RH-30, respectively). Other land uses in the vicinity include commercial development to the west zoned as El Camino Real/Chestnut Mixed Use High Density (ECR/C-MXH), and Los Cerritos Elementary School to the south zoned as School (S). There is also a small parcel of land adjacent to the northwest side of the Park along Chestnut Avenue owned by CalWater and zoned as Public/Quasi Public (PQP) (City of South San Francisco 1999, 2018a).

The Project site is located within the SFO ALUCP Airport Influence Area (AIA) B, which is based on a combination of the outer boundaries of the noise compatibility and airport safety zones (C/CAG 2012).

The existing Colma Creek channel bisects Orange Memorial Park; two pedestrian bridges the Park traverse the channel. The creek itself is maintained by the San Mateo County Flood Control District as a flood control channel within the Colma Creek Flood Control Zone.

IMPACT ANALYSIS

a) Physically divide an established community?

No Impact. The proposed Project would implement a subterranean stormwater capture facility and construction would take place entirely within Orange Memorial Park. Construction activities over approximately 12 to 18 months including storage and staging of construction materials have the potential to cause temporary physical disruptions to residents in the vicinity. Once construction is completed, the Project would not physically divide an established community. All affected ballfields would be regraded, restored, reconstructed, and opened back up to the public. The installation of new turf would occur after the water capture facility is complete, but it is part of a separate and subsequent project. Therefore, no long-term impact on an established community would result.

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?

No Impact. The proposed Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project. Applicable land use plans include the City of South San Francisco's General Plan *Land Use Element*. Upon completion of the Project, the existing setting of the Project site, including the open picnic areas and two ballfields would be regarded and restored and the site would remain zoned as Park and Recreation (PR) under the City's General Plan and Zoning Ordinance. No park or open space uses would be permanently displaced because of the water capture facility. The proposed Project would not result in any changes to existing land use in the vicinity. Therefore, no impact on applicable land use plans, policies, or regulations would result.

XII. MINERAL RESOURCES

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

ENVIRONMENTAL SETTING

The proposed Project is located in a developed area comprised of commercial, industrial, and residential uses. State mineral resources mapping indicates that no mineral resource recovery sites have been established or considered in the vicinity of the proposed Project (California Department of Conservation 2015). No oil or gas wells are located near or within the Project site. The nearest well to the Project area is located approximate 2.1 miles west and is plugged and abandoned (California Department Of Conservation 2018).

IMPACT ANALYSIS

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

No Impact. Construction of the proposed Project would occur entirely within Orange Memorial Park and the Colma Creek channel; temporary construction equipment would be stored in the general vicinity of the Project site. The entire Project site is previously disturbed land. No known mineral resources are located on the site or in the area surrounding the Project. The Project would not result in the loss of availability of a known or locally important mineral resource. The Project vicinity does not contain active

aggregate or petroleum mining operations, and no such operations would occur. Neither construction related activities or long-term operation of the proposed Project would cause a significant loss of mineral resources that would be of value to the region. Therefore, there would be no impact on mineral resources.

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

No Impact. The proposed Project is not delineated as a locally important mineral resource recovery site in the General Plan or on any other land use plan. Therefore, no Project impacts on mineral resources would occur.

XIII. NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	☐	☒	☐	☐
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The existing noise setting within the vicinity of Orange Memorial Park is generated vehicle traffic along El Camino Real (State Route 82) and local street traffic along West Orange Avenue, North Canal Street, Tennis Drive, Memorial Drive, and Commercial Avenue. Centennial Way bike path is located directly south of the Park and generates bicycle and pedestrian traffic. The SamsTran Number 37 Bus runs along West Orange Avenue during weekdays (i.e. school days) with stops at West Orange Avenue and Tennis Drive. The BART Line runs south of the Park and east of El Camino Real between the South San Francisco and San Bruno stations. Secondary noise sources in the vicinity consist of aircraft

overflights from the nearby SFO Airport and distant traffic noise from U.S. Highway 101. Adjacent land uses include urban, industrial, and residential development.

Photo 9.*The multi-family residences at the Park Lane Apartments are located to the west of Orange Memorial Park and to the south of the Colma Creek channel.*

Residences, schools, hotels, child care facilities, and convalescent facilities are typically considered noise sensitive land uses. Based on a conservative approach, the nearest potential residential receptors to the Project site are single-family homes located approximately 70 feet east of the Park along West Orange Avenue and multi-family residences located at Park Lane Apartments to the west of the Park and south of Colma Creek channel (Photo 9). Centennial Dog Park and Boys and Girls Club of South San Francisco are located approximately 400 feet to the south on the opposite side of Memorial Drive. Los Cerritos Elementary School is located approximately 600 feet to the southeast of the Memorial Drive and West Orange Avenue intersection.

The maximum ambient sound levels within residential land use areas are assumed to be less than 65 dBA (South San Francisco Municipal Code Section 20.300.010, *Performance Standards*).

City of South San Francisco Municipal Code (SSFMC) Chapter 8.32 Noise Regulations

The City of South San Francisco regulates exterior noise levels through its Noise Regulations (Municipal Code Section 8.32.030, *Maximum Permissible Sound Levels).* Section 8.32.030 of the Noise Regulations contains maximum permissible sound levels to be generated on properties in the City. The maximum allowable noise level is determined by the land use category of the nearest sensitive receptor properties. The Noise Ordinance limits noise levels in single-family or multiple-family residential areas to 60 decibels (dBA)[1] between the hours of 7 a.m. and 10 p.m. Section 8.32.030(a) states it is unlawful for any person to operate any source of sound at any location within the City, which causes the noise level when measured on any other property to exceed:

1. The noise level standard for the specified land use for a cumulative period of more than 30 minutes in any hour;
2. The noise level standard plus 5 dB for a cumulative period of more than fifteen minutes in any hour;
3. The noise level standard plus 10 dB for a cumulative period of more than five minutes in any hour;
4. The noise level standard plus 15 dB for a cumulative period of more than one minute in any hour; or

[1] Noise is measured and quantified with an A-weighted filter, which closely approximates the way the human ear hears sound: a deemphasis for low-frequency and high-frequency sound. The resulting measurement is quantified as an A-weighted decibel, or dBA.

5. The noise level standard or the maximum measured ambient level, plus 20 dB for any period of time.

The City of South San Francisco regulates interior noise levels through Municipal Code Section 8.32.040, *Interior Noise Limits*. Section 8.32.050(d) indicates that a noise level more than 10 dB above the level allowed by Section 8.32.030 measured three feet from any wall, floor or ceiling inside any unit on the same property when the windows and doors of the unit are closed is unallowable.

The Noise Ordinance also contains special provisions for construction activities in Municipal Code Section 8.32.050, *Special Provisions*. Section 8.32.050(d) indicates that construction activities that are authorized by a valid city permit are allowed on weekdays between 8 a.m. and 8 p.m.; on Saturdays between 9 a.m. and 8 p.m.; and on Sundays and holidays between the hours of 10 a.m. and 6 p.m., or at other hours as authorized in the city permit, as long as they meet at least one of the following noise limitations:

1. No individual piece of equipment shall produce a noise level exceeding 90 dB at a distance of 25 feet. If the device is housed within a structure or trailer on the property, the measurement shall be made outside the structure at a distance as close to 25 feet from the equipment as possible.

2. The noise level at any point outside the property plane of the Project shall not exceed 90 dB (Ordinance 1088 Section 1, 1990).

According to Municipal Code Section 8.32.060, *Exception Permits,* if the applicant can show to the City Manager, or the Manager's designee, that a diligent investigation of available noise abatement techniques indicates that immediate compliance with the requirements of this chapter would be impracticable or unreasonable, a permit to allow exception from the provisions contained in this chapter may be issued, with appropriate conditions to minimize the public determinant caused by such exceptions. Any such permit shall be of as short a duration as possible, but in no case for longer than six months. These permits are renewable upon a showing of good cause, and shall be conditioned by a schedule for compliance and details of compliance methods in appropriate cases (Ordinance 1088 Section 1, 1990).

IMPACT ANALYSIS

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 in other applicable local, state, or federal standards?

Less than Significant with Mitigation. Construction noise would be limited by both the permitted hours of construction activities and the maximum noise levels that would potentially affect nearby properties. The City's Municipal Code contains noise regulations for permitted construction hours of operation and allowable exterior noise levels. Therefore, the proposed Project would result in a significant noise impact if:

- Project construction activities occur outside allowed construction hours of operation identified in The City's Municipal Code Section 8.32.050, *Special Provisions* or do not

contain a valid city permit authorizing such construction activities and that such activities do not produce a noise level exceeding 90 dB at a distance of 25 feet or exceed 90 dB at any point outside the property plane of the project.

- Project operational noise sources exceed 60 dBA Community Noise Equivalent Level (CNEL) for single-family uses.

Changes in noise levels of less than 3 dBA are generally not discernible to most people, while changes greater than 5 dBA are readily noticeable and would be considered a significant increase. Therefore, the significance threshold for mobile source noise is based on human perceptibility to changes in noise levels with consideration of existing ambient noise conditions and the City's Noise Regulations. For ground borne vibration, according to the Federal Transit Administration (FTA) guidelines, a vibration level of 65 vibration decibels (VdB) is the threshold of perceptibility for humans.[2] For a significant impact to occur, vibration levels must exceed 80 VdB during infrequent events (U.S. Department of Transportation [USDOT] / Federal Transit Administration [FTA] 2006b).

Construction Noise

Two types of temporary noise impacts would occur during the 18-month Project construction period. First, construction workers would commute to the site and trucks would transport equipment and materials to the site. These worker and truck trips would incrementally increase noise levels on El Camino Real and the local roads throughout the duration of project construction. These worker and truck trips would result in intermittent noise increases on local roads, but would not affect long-term ambient noise levels. The second type of temporary noise impact would be related to noise generated during site mobilization and staging, excavation, installation of water capture facilities, and grading. Louder types of construction equipment would potentially include the operation of dozers, cranes, front loaders, excavators, dump trucks, backhoes, generators, air compressors, and forklifts. The City would ensure Project construction would comply with the City's Noise Regulations, but certain activities would potentially be more noticeable and cause short-term nuisances to nearby sensitive receptors.

To determine noise levels associated with short-term construction (i.e., installation of the water capture facility) and the corresponding noise levels that would be experienced at the nearest sensitive receptor(s), it is industry practice (General Assessment) to combine the two loudest pieces of equipment that would be operating simultaneously during a specific construction phase and then calculate the attenuation of the construction noise level based on the distance to the nearest sensitive receptor(s) (U.S. Department of Transportation [USDOT] / Federal Transit Administration [FTA] 2006). Maximum construction equipment noise levels at the nearby sensitive receptors during construction are shown in Table 6. As shown in Table 6, noise levels would be highest at the nearby sensitive receptors during site mobilization and staging, the installation of the underground storage reservoir (i.e. structural/auger drilling), and grading. Depending on the final plans for the underground storage reservoir, these activities would include excavation and grading activities within 50

[2] VdB is the vibration velocity level expressed in decibels relative to one micro-inch per second (1 x 10^{-6} inch per second).

feet of the property line of the Park.[3] However, typical construction equipment would not be expected to generate noise levels above 90 dBA at 50 feet, and most equipment types would typically generate noise levels of 85 dBA at 50 feet.

Table 6. Typical Noise Levels from Construction Equipment

Construction Equipment	Noise Level (dB, Lmax[1] at 50 feet)
Dump Truck	76
Auger Drill Rig	84
Drill Rig Truck	79
Air Compressor	78
Crane	81
Scraper	84
Dozer	82
Paver	77
Generator	81
Rock Drill	81
Front End Loader	79
Grader	85
Backhoe	78

Source: Federal Highway Administration (FHWA) Roadway Construction Noise Model User's Guide 2006.

[1] Lmax is the instantaneous maximum noise level for a specified period of time.

For the proposed Project, the combined loudest pieces of equipment (e.g., crane, dump truck, dozer, etc. at 85 dBA), during construction would reach 88 dBA at 50 feet from the construction activity (USDOT / Federal Highway Administration [FHWA] 2006). These higher noise levels would be generated during the use of earth moving equipment and excavation activities, installation of the underground storage reservoir, and grading. Therefore, the construction noise level at the sensitive receptor locations, including both the single-family residences along West Orange Avenue and multi-family residences at Park Lane Apartments, both located 70 feet from the Project site would be 85 dBA.

If a valid city permit is obtained, construction activities would comply with the South San Francisco Noise Regulations, as long as no individual piece of equipment shall produce noise levels that exceed the construction noise limit of 90 dB at the property line. Similarly, groundborne vibration levels during construction should be minimal as no vibratory equipment is expected to be used (e.g. jackhammers to break up pavement). While noise levels would potentially still impact nearby sensitive receptors, these noise levels would be temporary. Therefore, the proposed Project must adhere to the City's Municipal Code and obtain a valid city permit consistent with Municipal Code Section 8.32.050, *Special Provisions* and implement standard noise reduction measures. The implementation of these standard noise reduction measures would minimize the temporary increase in noise levels and nuisance impacts to nearby sensitive receptors.

[3] Based on the 30 percent conceptual plans, the underground storage reservoir is sited approximately 200 feet from the property line of the Park along West Orange Avenue. The pipe inlet structure and diversion channel are sited approximately 75 feet from the property line of the Park south of Colma Creek.

Operational Noise

There would be little to no operational noise associated with the proposed Project. The water capture facility is a gravity-fed system that would not involve any large-scale electrical or pumping equipment. Minimal noise generated by the water quality polishing and disinfection shed and irrigation pump would occur. The dedicated equipment shed would measure approximately 15 feet by 20 feet and would house the carbon and UV treatment and distribution equipment and a control panel. Noise associated with running the irrigation equipment would only consist of minor humming and would be similar to noise levels associated with the existing irrigation pump in the same area. The small-scale irrigation pump would be located adjacent to the equipment shed along the western boundary of the ballfields and to the northeast of the large covered picnic area. The operational noise levels associated with the new irrigation pump would be within a noise level reduction enclosure (i.e., shed) and pump noise levels would not exceed the existing criteria noise level for the specific land use. Park visitors who are utilizing the open picnic area would potentially hear the light humming; however, this noise would be nominal and unlikely detectable unless close to the shed (e.g., walking on the foot path between ballfields and open picnic area).

In summary, noise levels associated with developing the water capture facility would exceed criteria identified in South San Francisco Municipal Code Section 112.05 (60 dBA in residential zones) and ambient noise levels of the area (Q-M2-1 zone are assumed to be 70 dBA). Short-term construction noise levels would be approximately 85 dBA at the single-family residences along West Orange Avenue and the multi-family residences at the Park Lane Apartments, both located approximately 70 feet away from the proposed construction activity. Operational noise levels associated with an irrigation pump would not exceed the existing criteria noise level for the specific land use as the irrigation pump would be within a noise level reduction enclosure. Therefore, if construction activities occur within allowed construction hours and a valid city exception permit is obtained and no single piece of equipment would exceed a noise level of 90 dBA, then noise impacts would be temporary and limited to nuisance impacts to nearby sensitive receptors. The implementation of the mitigation measure below is required to ensure construction noise levels remain below the noise thresholds. Therefore, noise impacts would be less than significant with mitigation.

Mitigation Measure NOI-1: Noise Minimization Measures

Construction noise levels would vary depending on the construction phase, equipment type, duration, distance between noise source and sensitive receptor(s), and the presence/absence of barriers between the noise source and receptors. To minimize temporary increases in noise, the City shall require the construction contractor to limit standard construction activities as follows:

- Secure a valid city permit for construction noise levels that could potentially temporarily exceed 90 dB at the Park's property line in order to comply with the South San Francisco Noise Regulations.
- Construction equipment and haul trucks shall use the best available noise control techniques, including improved mufflers, use of intake silencers, ducts, engine enclosures and acoustically-attenuating barriers, curtains, and shields.

- Site stationary noise sources, such as air compressors and generators as far from adjacent sensitive receptors as possible (i.e. site stationary sources along western perimeter of ballfields and along Memorial Drive). These sources shall be muffled and enclosed within temporary sheds or incorporate insulation barriers, shields, or other attenuating measures.
- If impact equipment and machinery are used such as jack hammers, pavement breakers, and rock drills, they shall be hydraulically or electrically-powered to avoid noise associated with air compressors or pneumatically-powered tools. If the use of pneumatically-powered tools is necessary, an exhaust muffler shall be installed on the air compressor. Such a muffler can lower noise levels from the exhaust by up to 10 dBA. Similarly, the installation of external jackets on the tools can reduce noise levels by 5 dBA.
- Material stockpiles and mobile equipment, staging, and parking areas shall be located as far as possible from noise sensitive receptors (i.e. within parking area west of enclosed picnic area off Memorial Drive and within vacant parcel located in northwest portion of Orange Memorial Park).
- As construction would occur within 600 feet of Los Cerritos Elementary School, the construction contractor shall coordinate with the school administration to limit noise disturbance to the campus. Temporary sound walls shall be constructed on the Project site boundary with the School.
- Identify a liaison that represents the property owners located adjacent to the Project site along West Orange Avenue and a second liaison for the residents at the Park Lane Apartment complex. These liaisons shall be contacted with concerns regarding construction noise. The liaison's contact information shall be clearly displayed at the construction location on posted signs informing the public of the construction hours and the liaison to contact in the event of a noise-related problem.
- Notify all adjacent landowners and occupants of the properties adjacent to the Project site of the anticipated construction schedule at least two weeks prior to ground disturbing activities.
- Hold a pre-construction meeting with the Contractor Superintendent, General Contractor, and City inspectors to confirm that all noise mitigation measures (including signage on construction hours, valid city exception permit, and liaison contact information) are completed.

If construction activity cannot comply with Municipal Code Section 8.32.050, *Special Provisions* and noise levels are anticipated to exceed 90 dB at the Park's property line, the City shall require the construction contractor to obtain a valid exception permit consistent with Municipal Code Section 8.32.060, *Exception Permit*.

Implementation of MM NOISE-1 would reduce noise impacts to less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant. According to the Federal Transit Administration (FTA) guidelines, a vibration level of 65 vibration decibels (VdB) is the threshold of perceptibility for humans.[4] For a significant impact to occur, vibration levels must exceed 80 VdB during infrequent events (U.S. Department of Transportation [USDOT] / Federal Transit Administration [FTA] 2006b). As a result, the excavation and grading activities associated with the water capture facility would potentially result in vibration impacts due to human annoyance associated with the vibration-generating activities. Table 7 shows the typical vibration levels produced by construction equipment.

Table 7. Vibration Levels for Varying Construction Equipment

Type of Equipment	Peak Particle Velocity (ppv) at 25 feet (inches/second)	Approximate Velocity Level at 25 feet (VdB)
Large Bulldozer	0.089	87
Loaded Trucks	0.076	86
Small Bulldozer	0.003	58
Auger/Drill Rigs	0.089	87
Jackhammer	0.035	79
Vibratory Hammer	0.070	85
Vibratory Compactor/Roller	0.210	94

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006.

Vibration levels would be less than the 0.2 inches/sec ppv threshold of damage at buildings over 25 feet from the Project site, except for compactor/roller equipment,. While vibration-generating activities associated with the Project would primarily occur during site clearing and excavation, these levels would be minimal as no vibratory equipment is expected to be used to excavate the ballfield area (e.g., jackhammers to break up pavement) and auger/drill rig equipment at a 25-foot distance would generate 0.089 ppv. The nearest structures (i.e. single-family residences, multi-family apartments) are located over 70 feet from the Project site. Based on the Caltrans Technical Advisory, vibrations are not predicted to exceed safe thresholds at any adjacent sensitive receptors. Therefore, vibration impacts would be less than significant.

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?

Less than Significant. The nearest airport to the Project vicinity is the SFO airport, located approximately 2.1 miles to the southeast. The Project site is located within the SFO ALUCP Airport Influence Area (AIA) B, which is based on a combination of the outer boundaries of the noise compatibility and airport safety zones (C/CAG 2012). According to the City's General Plan EIR, aircraft noise from SFO is the primarily source of

[4] VdB is the vibration velocity level expressed in decibels relative to one micro-inch per second (1×10^{-6} inch per second).

transportation noise in the City. The Project site is just outside the aircraft noise exposure contour. Because the Project would not introduce residents or employees to the area, it would not expose people residing or working in the area to excessive noise levels associated with the nearby airport. Therefore, noise impacts would be less than significant.

XIV. POPULATION AND HOUSING

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

ENVIRONMENTAL SETTING

The City of South San Francisco has a population of 67,078, with approximately 6,961.2 persons per square mile as of January 1, 2019 (DOF 2019). The City has experienced steady population growth in recent years; US Census Bureau data shows an estimated citywide population growth of 5.9 percent between April 2010 and July 2017. The City has an estimated 21,006 households with an average of 3.14 persons per household recorded between 2012 and 2016 (US Census Bureau 2017).

The Project site is located in an urban, developed area. The surrounding vicinity is designated as low, medium, and high density residential, commercial, and school uses by the City's General Plan and Municipal Code.

IMPACT ANALYSIS

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)?

No Impact. The proposed Project would not include the construction of any new structures, or residential housing, and does not involve the demolition of any structures. Therefore, the proposed Project would not directly induce population such that no impact to the local or regional population and housing would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed Project would not involve the displacement of existing people or housing. Therefore, no construction of replacement housing would be needed and no impacts on population and housing would occur.

IV. PUBLIC SERVICES

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

ENVIRONMENTAL SETTING

The South San Francisco Fire Department (SSFFD) provides fire protection services and emergency medical (paramedic) services within the City. The City has five stations that provide the community with emergency response services. The closest fire station is located at 480 North Canal Street, approximately 2,500 feet to the east of the Project site. The SSFFD provides a full emergency medical services program with a minimum on-duty staff of 20 persons. Currently, the Emergency Medical Services division consists of 39 dual-role Paramedic Firefighters, 10 part-time Emergency Medical Technicians (EMTs) and one Emergency Medical Services (EM) Chief (City of South San Francisco 2018b).

The South San Francisco Police Department (SSFPD) provides law enforcement and police protection services within the City with headquarters located approximately 0.4 miles from the Project site. The Department is allotted 83 sworn and 35 civilian positions and is divided into two Divisions, Operations and Services. The Operations Division includes Patrol, Criminal Investigations, Downtown Bike Patrol, K-9, Neighborhood Response Team, SWAT/Hostage Negotiations, and Traffic/Motors. The Services Division includes Communications, Community Relations, Property/Evidence, Records, Planning, and Recruiting. The Patrol Division consists of over 40 officers who cover 11 square miles of the City on a 24-hour basis, and respond to both emergency and non-emergency calls for service in each of the City's four patrol "beats" (City of South San Francisco 2018c).

The South San Francisco Unified School District (SSFUSD) is the primary school district that provides public school education to the neighborhoods adjacent to the Project site. The SSFUSD includes nine elementary schools, three middle schools, and three high schools. There are also approximately four private schools within the City (City of South San Francisco 2018d). The nearest public school to the Project site is Los Cerritos Elementary School, located approximately 600 feet south of the Project Site.

The City of South San Francisco owns and operates approximately 264.9 acres of parks and open space throughout the City, including 144.9 acres of 21 parks and playgrounds, 59.5 acres of open space, and 13.6 acres of athletic fields (City of South San Francisco 2018e). The Project occurs within Orange Memorial Park, as described in Section XVI, *Recreation*.

IMPACT ANALYSIS

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

Less than Significant with Mitigation. Construction of the proposed Project would install a water capture facility. No habitable structures would be constructed nor would flammable materials be used during construction requiring an expanded need for fire protection services that would result in the need for new or physically altered fire protection facilities. Project implementation would not contribute to an increase in population requiring fire protection services. The presence of Project construction workers would be temporary such that the need for emergency medical services in case of an accident would not exceed the City's current demand and capacity.

Heavy trucking and worker commute trips during construction of the Project would potentially induce short-term traffic on West Orange Avenue and Memorial Drive, which would potentially cause a minor impact to emergency response routes. Construction activities would occur within the Park and would be completed in accordance to applicable SSFFD emergency access standards. Impacts to traffic during construction are further described in Section XVII, *Transportation.* The proposed Project would also temporarily disrupt circulation and parking along Memorial Drive (and possibly Tennis Avenue and Eucalyptus Drive), requiring at a minimum a one-lane closure of Memorial Drive for construction staging. These disruptions would potentially cause short-term impacts on fire and emergency services due to temporary increases in traffic congestions on the surrounding local streets, and in turn would potentially cause the providers to seek alternate routes. As a result, these impacts are potentially significant despite possible alternative routes in the vicinity. Therefore, implementation of a traffic control plan would be established by the contractor and would be approved by the City of South San Francisco and San Mateo County to reduce substantially adverse physical impacts associated with the

construction of the water capture facility. The plan would ensure coordination with emergency response providers that serve the surrounding area.

Operation of the Project would not induce growth or result in the generation of significant additional demand for fire protection services within the area, as it would increase water quality but not involve generating new sources of potable water. The proposed Project would not increase demand for public services including emergency services or fire protection. Operation of the proposed Project would occur largely underground and require only periodic maintenance, similar to the activities currently conducted at the existing channel. Therefore, no new or expanded emergency service or fire infrastructure would need to be built in order to maintain acceptable service ratios, response times, or other performance objectives of public services. Thus, impacts on fire protection services during construction and operation would be less than significant with mitigation.

Mitigation Measure TRA-1: Traffic Control Plan

> A traffic control plan shall be established by the contractor, and approved by the City of South San Francisco. This traffic plan shall provide for the appropriate control measures, including barricades, warning signs, speed control devices, flaggers, and other measures to mitigate potential traffic hazards in the vicinity of the Park and El Cerrito Elementary School. The plan shall ensure coordination with administrators of El Cerrito Elementary School and other nearby facilities, such as the Boys and Girls Club by providing advanced notification to the facility administrators on the timing, location, and duration of construction activities.
>
> The traffic control plan shall also ensure coordination with emergency response providers that serve surrounding area. The City of South San Francisco shall potentially require a detour route if Tennis Avenue would be closed as a staging area. If this detour route is necessary, it shall be devised by the contractor as part of the traffic control plan. The plan shall also require that the export of excess soils occur between 10:00 a.m. and 3:00 p.m. to avoid peak traffic periods.

Implementation of MM TRA-1 would reduce short-term impacts on fire protection services to less than significant.

Police protection?, Schools?, Parks?, Other public facilities?

Less than Significant. Implementation of the proposed Project would not develop facilities that would contribute to an increase in population nor increase the need for schools or other public facilities. Consequently, the amount of people served by the local school district would not increase as a result of the proposed Project. The proposed Project would not contribute to an increase in population and an associated increase in existing recreational facilities that would potentially result in physical deterioration of existing facilities. The proposed Project, however, would be located within the Park designated and zoned for recreation and open space uses (City of South San Francisco Planning Division 2015). Therefore, construction of the proposed Project would temporarily limit the use of approximately 1.5 to 2.5 acres of the Park during construction over a 12- to 18-month period, thereby temporarily increasing recreation use at adjacent park and open space within Orange Memorial Park. Such temporary limits on access to recreational resources in Orange Memorial Park, particularly the open picnic area and softball and baseball fields,

would potentially create increased short-term demand at other parks and recreational resources in the Project area. After construction, the existing park uses would be regraded and restored, and as part of a separate and subsequent project, the existing ballfields would be restored with new turf. Therefore, long-term recreational impacts would be less than significant.

Once constructed, the water capture facility and storm drain conveyance pipes would be underground, and the one small above-ground facility (i.e. water quality polishing and disinfection and equipment shed) would not impact the use of recreational or public facilities. The proposed Project would involve periodic inspection and maintenance of the new facilities at the pipe inlet structure and the underground storage reservoir. Although ballfield improvements, such as new turf, fencing, and dugouts are part of a separate and subsequent project, once operational the proposed Project would result in overall improved facilities at Orange Memorial Park. Operation impacts would not result in substantial adverse impacts related to the new or physically altered features. Therefore, long-term Project impacts on police, school, park, and other public facility services would be less than significant.

XVI. RECREATION

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

ENVIRONMENTAL SETTING

The City of South San Francisco is home to a range of outdoor recreation opportunities, each reflecting the variety of the City's landscape and pattern of development. The City's Parks and Recreation Department manages 264.9 total acres over 30 designated parks and open space areas, averaging 4.1 acres per 1,000 residents. This includes 144.9 acres of 21 parks and playgrounds, 59.5 acres of open space, and 13.6 acres of athletic fields, each of which are generally used year-round (City of South San Francisco 2018e).

Recreational facilities in the Project vicinity include Orange Memorial Park, Centennial Way biking and walking trail, and Centennial Way Dog Park. Orange Memorial Park offers 28 acres of amenities including baseball, softball, and soccer fields, an indoor swimming pool, two children's playgrounds, seven tennis courts, a skate park, Orange Memorial Pool and the Joseph A. Fernekes Recreation Building. The two ballfields are used year-round for various athletic teams, including but not limited to youth baseball, youth and adult softball,

South San Francisco High School Athletics, and flag football. Athletic organizations that currently use the ballfields include: South San Francisco High School; South San Francisco youth baseball and softball leagues, the City of South San Francisco adult softball team, Colt summer baseball program, and the South San Francisco Junior Giants team. Other groups that use the ballfields include: the Summer High School Baseball Clinics, City of South San Francisco Flag Football team, and the Boys and Girls Club. The soccer fields are also used year-round for youth soccer practice and games.

The Park contains five of the City's sixteen picnic areas that are available for rent or walk-up use, which have a total occupancy of 290 people. The Park also serves as the location for major community-wide events including Farmers Markets, car shows, and other public and private events, such as Concert in the Park, Day in the Park, Streets Alive!, Parks Alive!, and Movie Nights in the Park. The South San Francisco Farmer's Market currently occurs every Saturday from 10 a.m. to 2 p.m. While most of these special events occur within the northern portion of the Park at the soccer fields, Joseph A. Fernekes Building, and basketball and tennis courts, the Concert in the Park (in September) takes place on all of the park sport fields, and various picnic season events (March to October) occur at the five group picnic areas in the southern portion of the Park. Table 8 lists additional parks within one mile of Orange Memorial Park.

Table 8. Recreational Facilities Within 1 mile of the Project Site

Facility Name	Location Relative to the Project	Facilities
Centennial Way	0 miles- runs adjacent to Project site to the south	• Regional Walking & Bicycle Trail • Runs from SSF BART to San Bruno BART
Sister Cities Park	Trail terminus 30 feet to east	• Trail between Orange Avenue and Spruce Avenue
Avalon Memorial Lots	0.72 miles to the south	• Open Space, Walking path and benches
Avalon Park	0.84 miles to the south	• Children's play area • Public Restrooms • Group picnic areas with picnic tables • Ballfields (1 baseball)
Buri Buri Park	0.70 miles to the west	• Children's play areas • Picnic tables and group picnic areas • Tennis and Basketball courts • Ballfields (1 baseball) • Walking trail • Concession stand and restrooms
City Hall Playlot	0.83 miles to the east	• Children's play area • Picnic tables
Francisco Terrace Playlot	0.63 miles to the southeast	• Adult fitness equipment • Basketball courts • Children's play area
Sign Hill Park	0.75 miles to the north	• Walking Trail & Open space

Source: City of South San Francisco Parks and Recreation Department 2018

Regional recreational facilities include Centennial Way (bicycle and walking trail) and Centennial Way Dog Park. Centennial Way, one of three linear parks in the City, is a popular public trail for bike and pedestrian travel, which borders a portion of Orange Memorial Park to the west. The Centennial Way park area is also home to Centennial Way Dog Park and a sculpture garden, each of which are popular points of interest for pedestrians and cyclists using the trail (City of South San Francisco 2018f).

There are also numerous recreation amenities including baseball and softball fields at nearby schools, such as Ponderosa Elementary School, Sunshine Gardens Elementary School, Alta Loma Middle School, South San Francisco High School, Baden High School, and El Camino High School.

IMPACT ANALYSIS

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less than Significant. Demand for park and recreation services are typically linked to an increase in population growth in the area through the development of new housing units or the generation of new jobs. The proposed Project does not involve new housing or jobs; it would construct and install the underground storage reservoir that would temporarily limit the use of the Park for a 12 to 18-month construction period, thereby temporarily increasing the use of adjacent space within Orange Memorial Park. Such temporary limits on access to recreational resources would potentially also create increased demand on neighborhood and regional parks and recreational resources in the Project area (listed in Table 8).

Given that the two ballfields and a portion of the open picnic area at the Park would be out of service during construction, athletic teams that typically use these ballfields would need to utilize other ballfields in the area. As shown in Table 8 above, there are two parks with ballfields within one mile of the Park, and a total of twelve other ballfields in the City. As a result, construction of the Project would result in increased use at nearby sport fields. This increased use would be from the softball and baseball leagues that currently use the ball fields at Orange Memorial Park. The construction period for the proposed Project however would be temporary, the two ballfields would be regraded and restored upon completion of construction, and temporary use at other neighborhood and regional parks (and ballfields) would not increase enough to cause substantial physical deterioration of the facilities. Therefore, recreational impacts would be less than significant.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Less than Significant. Once completed, the proposed Project would provide improvements to the existing two ballfields. During construction, both the softball and baseball field would be temporarily fenced off and removed from use, but would be regraded and restored upon Project completion. The construction of new fencing and

dugouts and the installation of new turf would also occur as part of a separate and subsequent project. While the proposed Project would restrict recreation use within a portion of the Park during construction, water capture facility operation would involve minimal maintenance and no adverse physical impacts on the environment. Operations and maintenance of the Project would include: cleaning out the grit chamber/trash screen and the infiltration chamber up to four times annually; filtration and disinfection equipment maintenance annually; and weekly checks on the irrigation reuse system. Therefore, impacts associated with the construction or expansion of recreational facilities would be less than significant.

XVII. TRANSPORTATION

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

ENVIRONMENTAL SETTING

The City/County Association of Governments of San Mateo County (C/CAG) serves as the Congestion Management Agency for San Mateo County and is responsible for administering the state-mandated Congestion Management Program and preparing the Countywide Transportation Plan, which establishes a long-range transportation vision for the county and informs the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) prepared by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG). The San Mateo County Transit District (SamTrans) oversees the County's bus transit system; the Peninsula Corridor Joint Powers Board (JPB) conducts planning and operations for the Caltrain commuter rail system; and the San Mateo County Transportation Authority (SMCTA) is responsible for planning and funding transportation improvements associated with the countywide transportation sales tax (C/CAG 2018). The City is also responsible for planning and implementing improvements to the local roadways within its jurisdiction. Applicable plans that are relevant to the Project site and vicinity include: the Transportation Element of the City General Plan; Pedestrian Master Plan (PMP); Bicycle Master Plan; City's CAP; San Mateo County Congestion Management Plan (CMP); and Plan Bay Area 2040 RTP/SCS.

The circulation system in the Project vicinity is comprised of residential roads and a state highway. The principal component of this network includes State Route 82, which serves as one of three main arterials of the City's circulation network. The road network also consists of Chestnut Avenue/Westborough Boulevard, West Orange Avenue, Memorial Drive, Tennis Drive, and Eucalyptus Avenue. Figure 4 shows the surrounding transportation network, as well as the designated truck traffic haul routes and proposed travel routes for the Project. A description of each road included as part of this network is also provided below.

State Route 82

California State Route 82 (SR-82) is a state highway controlled and maintained by the California Department of Transportation (Caltrans) that extends for approximately 52 miles from Interstate 880 in San Jose to Interstate Route 280 in San Francisco. SR-82 comprises a portion of California's historic El Camino Real as a component of the California National Highway System, and serves as a major arterial road for the peninsula (Caltrans 2011). SR-82 is designated in the City's Municipal Code as a truck traffic route for vehicles exceeding a maximum gross weight of three tons (City of South San Francisco 2018a).

Within the Project vicinity, SR-82 is a six-lane highway with an intermittent center median that is intersected by minor arterial and collector roads to provide through access to local roadway networks. The posted speed limit of SR-82 in the Project vicinity (between its intersection with West Orange Avenue and 1st Street) is 35 miles per hour (mph). SR-82 has an average daily traffic level varying from an average 32,000 to 41,000 daily vehicles per day (ADT) (Caltrans 2016). According to the City of South San Francisco General Plan Transportation Element, SR-82 has a daily volume of varying from 24,700 to 45,500 daily trips with a capacity of 40,000 to 60,000 ADT (City of South San Francisco 1999). The portion of SR-82 in the Project vicinity from Orange Avenue to Chestnut supports 30,951 ADT according to a transportation impact analysis prepared for the Community Civic Campus Project Subsequent EIR (City of South San Francisco 2017a). While most roadway segments were expected to be maintained within the City (based on the 1999 General Plan), portions of El Camino Real continue to operate at congested levels (City of South San Francisco 1999).

At SR-82 intersections with 1st Street and 2nd Street, designated right-turn lanes are absent in both the northbound and southbound directions, while unprotected left-turn lanes are provided. The intersection of West Orange Avenue lacks a designated right-turn lane but provides a signalized left-turn lane in the northbound and southbound directions, as well as pedestrian crosswalks. SR-82 is also a designated Class III bicycle route, in which there is no bicycle lane and the road is shared with automobiles and other vehicles. The road shoulders of SR-82 in the vicinity are used as parking for access to local businesses and residences, and there are sidewalks present on both sides of the road. SR-82 is approximately 100 feet in width including road shoulders.

wood.

Transportation Network

FIGURE 4

Chestnut Avenue/Westborough Boulevard

Chestnut Avenue is a major arterial road that transitions from Westborough Boulevard east of SR-82/El Camino Real and extends west for approximately 4,850 feet to Hillside Boulevard north of the Project vicinity (City of South San Francisco 1999). This portion of the roadway is also designated as a truck traffic route for vehicles exceeding a maximum weight of three tons in the City's Municipal Code (City of South San Francisco 2018a). The speed limit of Chestnut Boulevard from El Camino Real to Commercial Avenue is 30 mph (City of South San Francisco 2018a). The portion of the roadway from Grand Avenue to Mission Road supports 19,332 ADT (City of South San Francisco 2017a). The width of the paved road is approximately 85 feet, with four through lanes and one to two dedicated turn lanes in each direction. At its intersection with Commercial Avenue, designated light-controlled right- and left- turn lanes are provided in each direction. Chestnut Avenue does not provide direct access to the Project site but would potentially convey vehicular transportation to the vicinity via Commercial Avenue.

West Orange Avenue

West Orange Avenue is a two-lane undivided road controlled by the City of South San Francisco that borders the Park to the southeast and provides access to the Project site. West Orange Avenue is classified as a minor arterial road by the City's General Plan Transportation Element and has free-flowing traffic conditions with a Level of Service (LOS) rating of A (City of South San Francisco 1999). According to the City of South San Francisco General Plan Transportation Element, Orange Avenue between North Canal Street and Commercial Street, north of the Project site, has a daily volume of 9,700 daily trips with a capacity of 18,000 ADT. The speed limit of West Orange Avenue within the Project vicinity is 25 mph. West Orange Avenue has frequent driveway access on the residential side from its intersection with Memorial Drive to North Canal Street, north of which it is separated from residences by a grove of eucalyptus trees. Pedestrian accommodation is provided by sidewalks on both sides of the road and crosswalks at stop-controlled intersections. West Orange Avenue is a designated bike route with defined bike lanes along the majority of 1,300 foot border of the Park. The width of the paved road is approximately 55 feet, including shoulders on either side that would potentially be utilized as additional parking for access to residences and visitors to the Park.

Memorial Drive

Memorial Drive is a two-lane undivided road that borders the Park to the south and serves as the primary access route to the Park Lane Apartments located to the southeast Colma Creek. Beginning at West Orange Avenue, Memorial Drive extends for approximately 1,300 feet along the southern perimeter of the Park until its terminus behind the Park Lane Apartments. The road has a speed limit of 15 mph and provides primary access to parking lots along the south and west perimeter of Park. Pedestrian access along Memorial Drive is limited as there is no developed shoulder or sidewalk as the road is separated from Park facilities by a dirt barrier lined with eucalyptus trees. However, pedestrians would potentially walk along the dirt barrier. Memorial Drive has an approximate width of 24 feet.

Tennis Drive

Tennis Drive is a two-lane undivided road that borders the Park to the north and has frequent driveway access to residences north of the Park. Tennis Drive serves as the primary access route to the largest central parking lot of the Park, adjacent to facilities such as the Joseph A. Fernekes Recreation building, tennis courts, and a children's playground. Recreationalists utilizing Orange Memorial Pool would potentially use Tennis Drive to access a smaller parking lot located within the northeast boundary of the Park. There are one-directional stop signs at its intersections with West Orange Avenue and Eucalyptus Avenue, and pedestrian accommodation is provided to access the Park. Tennis Drive is classified as a local street under the City's General Plan Transportation Element and has a posted speed limit of 15 mph (City of South San Francisco 1999).

Eucalyptus Avenue

Eucalyptus Avenue is a two-lane undivided road that extends south from Tennis Drive and provides primary access to facilities in the northwestern portion of the Park. Beginning at Tennis Drive, Eucalyptus Avenue extends for approximately 425 feet and provides driveway access to art studios and the skate park. The paved road then turns 90 degrees east into the Park and transitions into a one-way street that allows through access back to Tennis Drive in a loop around the Park's central parking lot. For the length of the road south of Tennis Drive and within the Park, Eucalyptus Avenue varies between approximately 22-to 30-feet wide and is classified as a local street under the City's General Plan Transportation Element (City of South San Francisco 1999). This portion of Eucalyptus Avenue does not have a posted speed limit.

Centennial Way / Biking and Pedestrian

The Centennial Way Trail is a 2.85-mile asphalt bike and pedestrian path that runs adjacent to the Park for approximately 1,000 feet and provides direct access to park facilities (City of South San Francisco 2018f). The trail is a designated linear park and is classified as a contiguous Class 1 bike path, in which paved facilities are physically separated from roadways used by motor vehicles and are designated for bike use (City of South San Francisco 1999). Centennial Way is 10 feet wide with a decomposed granite shoulder along the length of the paved trail. The Park is a dedicated point of interest according to the City's Centennial Way brochure (City of South San Francisco 2018f).

Public Transportation

The Bay Area Rapid Transit (BART) is a heavy rail elevated and subway system that serves the Bay Area and travels underground adjacent to the southern border of the Park. BART provides daily regional transportation connecting San Francisco and Oakland to urban and suburban areas, and linking communities to employment and activity centers throughout the region. The nearest BART service to the Project vicinity is the South San Francisco station, located approximately 1.15 miles to the northwest.

SamTrans provides bus service, including Redi-Wheels paratransit service and Caltrain commuter rail service operated by San Mateo County Transit District. It operates 76 bus routes throughout San Mateo County and into parts of San Francisco and Palo Alto. The Caltrain Commuter Rail is a ticketed train service that provides regional weekday and

weekend transportation in a linear route through the City. The nearest Caltrain service station to the Project vicinity is approximately 1.2 miles to the east.

The South City Shuttle is a free, public weekday service that operates in a clockwise loop and provides transit connections with SamTrans and BART, as well as trips to local stores and community centers. The shuttle provides 15 daily departures times at two stops located along West Orange Avenue that provide access to the Project vicinity.

Public Parking in the Project Vicinity

Public parking in the Project vicinity is available in City-owned public parking lots accessed through Memorial Drive, Eucalyptus Avenue, and Tennis Drive, with the majority of off-street parking available within a small parking lot off Memorial Drive (i.e. approximately 140 parking spaces) and a large parking lot off Tennis Avenue (i.e. approximately 160 parking spaces) On-street parallel parking in the immediate vicinity is also provided on West Orange Avenue and pull-in spaces along Memorial Drive.

The traffic analysis is based on the conclusions of the focused traffic impact analysis prepared by Wood Environment and Infrastructure Solutions, Inc. for the proposed Project (Appendix G).

IMPACT ANALYSIS

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

Less than Significant. The proposed Project would involve the installation of a water capture system; it does not involve changes to public transit routes, roads, bicycle, or pedestrian facilities. Therefore, the proposed Project would not conflict with programs, plans, ordinances, or policies in place that address the circulation system in the Project vicinity. Transportation impacts would be less than significant.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to analyzing transportation impacts based on vehicle miles travelled (VMT)?

Less than Significant. Section 15064.3(b) of the CEQA Guidelines provides criteria for analyzing transportation impacts associated with land use and transportation projects based on vehicle miles travelled (VMT). This section summarizes qualitative analysis methods such as the availability of transit and proximity to other destinations; it also indicates that a qualitative analysis of construction traffic would potentially be appropriate for many projects. A focused traffic impact analysis was prepared for the proposed Project. Measurements of transportation impacts included the haul and worker vehicle trips generated (Appendix G). Traffic impacts from construction trucks and worker vehicles would be considered potentially significant if Project construction would materially interfere with the area traffic flow and capacity of the street system, cause unsafe conditions, or introduce substantial truck traffic through a residential area.

The analysis of the Project's short-term construction impacts considers heavy truck traffic generated from excavation, construction vehicles, and material and equipment delivery

over the duration of the 12- to 18-month period of construction. The analysis qualitatively evaluates the potential for construction related impacts on traffic flows, reduction in lane capacities on local streets, parking availability, delays or alterations of transit service, and impacts to pedestrian and bicycle circulation. The proposed Project would require the use of construction equipment such as excavators, bulldozers, backhoes, front-end loaders, dump trucks, concrete ready-mix trucks, trailers, and cranes. This equipment, along with other contractor vehicles, would be staged in the paved Park parking lots accessible from Memorial Drive or within the immediate vicinity of the two ballfields within the Park property. The worker, vendor, and haul trips generated would vary during construction phase depending on the activities involved, as detailed in Table 9 below.

Table 9. Approximate Trips Generated

Construction Phase	# Worker Trips (/day)[1]	# Vendor Trips (/day)	# Trips Hauling
Staging and Mobilization	10	0	0
Excavation and Export	25	0	700
Installation of Underground Storage Reservoir	30	18	0
Installation of Diversion Pipelines	25	1	0
Installation of Treatment and Filtration Chambers	30	18	0
Restoration of Ballfields	10	1	0

Sources: Lotus Water 2019; Wood Environment & Infrastructure Solutions, Inc. 2019 Assumptions

NOTE:

[1] Assumes each worker arrives in their personnel vehicle each day and generates one inbound trip during the morning peak hour and one outbound trip during the evening peak hour.

The proposed Project would require the delivery and removal of materials at the construction staging areas. Materials delivery and concrete trucks supporting construction activities at the Park would access the Project site by either: via Interstate 280 (I-280) to Westborough Boulevard to El Camino Real (SR-82) to West Orange Avenue to Memorial Drive; or via Interstate 380 (I-380) to SR-82 to West Orange Avenue to Memorial Drive (Figure 4). According to the City's Municipal Code, SR-82 and Chestnut Boulevard/Westborough Boulevard are a designated truck traffic routes. Materials delivery trucks and other heavy construction equipment supporting the Project would access the construction staging areas via Memorial Drive. Removal of excavated materials would be temporarily staged in the far western portion of the Park south of Colma Creek, or north of the Colma Creek in a City-owned vacant parcel west of Eucalyptus Avenue.

As shown in Table 9, the maximum number of truck trips are forecasted to occur during the excavation and export phase with up to 700 haul trips, including an additional 25 worker trips during the morning and evening hours. Assuming the trip length for both haul and worker trips is 15 miles per trip, this equates to 10,875 VMT (daily vehicle trips x miles per trip). The number of haul trips is based on the dimensions of the proposed excavation area for the underground storage reservoir and pipe inlet infrastructure, and the average capacity of a haul truck (i.e., 12 to 16 cubic yards). The haul trips also take into account the route to an off-site hauling destination, which is located approximately 15 miles northeast

of the Project site at Treasure Island. The worker trips are derived based on similar water capture projects constructed in other cities, and based on the number of employees needed to operate construction equipment. Worker trips assume each employee arrives in a separate vehicle each day and generates one inbound trip during the morning peak hour and one outbound trip during the evening peak hour. While these worker trip routes would potentially vary, they would all access the Project site via SR-82 and West Orange Avenue; the analysis does not assume workers would commute to the site via public transit. Vendor trips are also expected to vary based on the construction phase, as more vendor and equipment delivery trips would be generated during the installation of the underground storage reservoir.

During construction, no street (i.e., Memorial Drive or West Orange Avenue) would be temporarily closed. At a minimum, one-way traffic would be maintained along Memorial Drive to ensure the multi-family residents would potentially access the Park Lane Apartment complex. The construction contractor would make its own arrangement for off-site storage of equipment and worker parking, if necessary. Construction contractor equipment and parking would occur along Memorial Drive near the southern portion of the Park near the two ballfields, and possibly a City-owned vacant parcel located in the northwest portion of the Park. Construction hours would be limited to Monday-Friday, 8 a.m. to 8 p.m.; Saturday, 9 a.m. to 8 p.m.; and Sunday and Holidays, 10 p.m. to 6 p.m. Work would be conducted to ensure construction activities would not interfere unnecessarily with other areas of the Park or residential setting of the immediate vicinity.

During Project operation, trip generation associated with the proposed Project would not occur on a daily basis. Routine maintenance of the water capture facility would require five annual trips of one to two vehicle(s) per visit that would utilize existing parking lots. Project operation would also involve weekly trips to check the irrigation reuse system that would require one vehicle per trip that would utilize the existing parking lots.

In summary, Project construction trips would be short-term over a 12- to 18-month period. Hauling operations would be scheduled to occur during off-peak hours on the surrounding road system between 10:00 a.m. and 3:00 p.m., thereby reducing impacts on the surrounding street network during morning and evening commutes. Therefore, although the proposed Project would increase VMT (i.e. daily trips) during construction, this increase in VMT would be temporary, the proposed Project would be consistent with CEQA Guidelines section 15064.3(b), and transportation impacts would be less than significant.

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

No Impact. The proposed Project involves the installation and operation of an underground water capture facility. No changes to existing roads are proposed as part of the Project. Therefore, the proposed Project would not substantially increase hazards due to a geometric design feature or incompatible uses. No transportation impacts would occur.

d) Result in inadequate emergency access?

Less than Significant with Mitigation. The Project site is currently used for recreational activities and the proposed Project involves the construction of a water capture and treatment facility within the Park. With the exception of the small shed for the water quality polishing and disinfection equipment and the park's landscape irrigation, all the storm water infiltration system infrastructure would be installed underground. No changes to the existing roadway network would occur. Therefore, the proposed Project would not result in inadequate emergency access during long-term Project operations.

While the majority of construction activities for the Project would be confined on-site, short-term construction activities would potentially temporarily affect access on Memorial Drive during certain periods of the day. Minor traffic control would potentially be necessary during the hauling of export from the Project during the excavation phase and during the installation of the underground storage reservoir. Memorial Drive and West Orange Avenue would not be closed or partially closed to traffic except for a lane closure adjacent to the Park on a few occasions. At least one-way traffic would be maintained along Memorial Drive to ensure the multi-family residents can access the Park Lane Apartment complex. No street would be temporarily closed or partially closed (one-way traffic) without first obtaining the permission from the City of South San Francisco. The Project would also implement traffic control measures, as outlined in Mitigation Measure TRA-1 to maintain flow and access along local streets, but specifically Memorial Drive. The times of day and locations of potential temporary lane closures would be coordinated so that they do not occur during peak periods of traffic congestion. Therefore, construction would not result in inadequate emergency access and impacts would be less than significant with mitigation.

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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:				
a) 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)?	☐	☐	☒	☐
b) 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?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

At the time of the initial European contact with the Native Americans of the San Francisco Bay area, Costanoans (from the Spanish costaños, or "coast people"), members of the Penutian linguistic family, inhabited the area from the Carquinez Strait and the northern tip of the San Francisco Peninsula to the region south of Monterey Bay and east to the Diablo Range (Levy 1978). These Native Americans called themselves Ohlone, entered the Bay Area approximately 1,500 years ago. They came from the Delta region and displaced earlier Hokan speakers. An estimated 7,000 to 10,000 Native Americans lived near San Francisco Bay by the time of European contact in the 18th century (Levy 1978). According to the City's General Plan EIR and consistent with the City's historic as an Ohlone settlement location, there are Native American village sites and archaeological sites scattered around the City of South San Francisco. Known resources occur along the El Camino Real corridor, in the San Bruno Mountains, and adjacent to portions of Colma Creek.

A search of the Native American Heritage Commission's (NAHC's) Sacred Lands File was requested on October 10, 2018 and conducted on November 5, 2018 to determine the presence of any Native American tribal heritage resources within the APE and general vicinity (Appendix C). The NAHC indicated that Native American tribal heritage sites are not recorded within the proposed Project APE or vicinity. The NAHC identified seven Native American contacts, both tribes and bands, that would potentially have specific knowledge as to whether cultural resources are identified in the APE. The City of South San Francisco notified the following six tribal organizations on May 6 and May 7, 2019 of the opportunity for consultation pursuant to PRC Section 21074: Amah Mutsun Tribal Band

(i.e. two contacts); Amah Mutsun Tribal Band of Mission Bay Juan Bautista; Costanoan Rumsen Carmel Tribe; Indian Canyon Mutsun Band of Costanoan;, Muwekma Ohlone Indian Tribe of the San Francisco Bay Area; and the Ohlone Indian Tribe. As of June 18, 2019, none of the contacted tribes have requested consultation.

IMPACT ANALYSIS

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:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Less than Significant. The proposed Project would not cause substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources (CRHR) or in another local register. According to the NAHC's Sacred Lands File there were no Native American tribal heritage sites recorded within the proposed Project APE or vicinity. The City did not receive any requests for consultation or information regarding tribal resources provided by notified tribal organizations in the area. Given the negative results of the NAHC Sacred Lands File Search and the Phase 1 ground surface survey/ subsurface Extended Phase 1 Archaeological Survey, and the existing disturbed environment of the Project site, the proposed Project would have a less than significant impact on tribal cultural resources.

b) 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?

Less than Significant. The City of South San Francisco has considered the significance of potential tribal cultural resources in the Project APE and vicinity to Native American Tribes. Based on the reasons summarized under Section XVIII, *Tribal Cultural Resources* (a) impacts on tribal resources would be less than significant.

XIX. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication 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 that 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?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Water service to the Project site is provided by the South San Francisco (SSF) District of the California Water Service (CalWater) primarily via the San Francisco Regional Water System (SF RWS). This water system is owned and operated by the San Francisco Public Utilities Commission (SFPUC). The SF RWS provides approximately 80% of the SSF District's water supply, and the remaining water is pumped from eight local district groundwater wells (BAWSCA 2018a). The SF RWS sources the majority of its water (approximately 85% during non-drought conditions) from the Toulumne River through Hetch Hetchy Reservoir, with the remaining supply sourced from the combined Alameda and Peninsula waters through five reservoirs: Calaveras, San Antonia, Crystal Springs, San Andreas, and Pilarcitos (SFPUC 2013). The Project site utilizes connections to the Crystal Springs and San Andreas pipelines. During the fiscal year of 2016-2017, the SSF District of CalWater reported an annual water production of 5.87 million gallons per day (MGD) (BAWSCA 2018b).

The City of South San Francisco and the City of San Bruno own and operate the South San Francisco/San Bruno Water Quality Control Plant (SSFWQCP) located along Colma Creek

near the San Francisco Bay. The SSFWQCP treats wastewater from Cal Water's SSF District prior to discharge into the San Francisco Bay, and has a designed capacity to treat 13 MGD average daily flow. The average dry weather flow through the facility is 9 MGD, and peak wet weather flows can exceed 60 MGD (CalWater 2016a). The sewer system includes gravity lines and force mains that combine both wastewater and stormwater runoff. Sewer system services, including operations, maintenance, and capital projects, are funded by the City of South San Francisco's sewer enterprise fund. The City's Sewer System Management Plan (SSMP) upholds regulatory requirements to improve stormwater quality, including prevention of unpermitted wastewater discharges and regularly scheduled sewer system cleaning and maintenance (City of South San Francisco 2014b).

Solid waste disposal services are provided by the South San Francisco Scavenger Company, Inc. Waste is sorted at the Blue Line Transfer, Inc. South San Francisco Transfer Station, the nearest full-service public disposal and recycling facility to the Project site. The City is mandated by the State of California to divert 65 percent of all solid waste generated by a construction or demolition site from landfills either by reusing or recycling, and all new construction projects are required to implement a WMP (City of South San Francisco 2017b). The Blue Line Transfer's diversion rate for loads of mixed construction and demolition debris is 65 percent (SSF Scavenger 2017). The Blue Line Biogenic CNG Facility, a joint effort between Blue Line Transfer Inc. and South San Francisco Scavenger, Co., Inc. composts organic waste at a diversion rate of 95 percent (SSF Scavenger 2018). The primary landfill of San Mateo County is the Ox Mountain Sanitary Landfill, which has a throughput capacity of 3,598 tons per day. The landfill has an estimated closure date in 2034, with over 60,500,000 cubic yards of remaining capacity as of December 2015 (Cal Recycle 2017).

Electric power services are provided by Peninsula Clean Energy (PCE) and Pacific Gas and Electric (PG&E). The City automatically enrolled all residents and businesses in PCE in 2016 in an effort to reduce GHG emissions and combat global warming, and offers the option to remain using PG&E as an energy provider. PCE purchases electricity directly from renewable energy sources, and PG&E delivers the electricity to homes and businesses using its existing transmission and distribution lines (City of South San Francisco 2018g). PG&E additionally provides the City's natural gas.

The proposed Project is along Colma Creek, a stormwater channel that bisects Orange Memorial Park and captures stormwater runoff throughout South San Francisco. There are two stormwater drains in the Project vicinity, both of which are outfalls into Colma Creek and flow towards the San Francisco Bay.

IMPACT ANALYSIS

a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant. Construction workers would generate a negligible amount of wastewater from using existing toilet facilities associated with the public restrooms in the Park or from using portable toilets that would be managed by a private company where the

waste is properly disposed off-site. Implementation of the proposed Project would include the development of a SWPPP to minimize the potential construction-related impacts on existing stormwater drainage facilities in the Project vicinity (refer to Section V, *Hydrology and Water Quality*). Existing land uses within the Park would not be modified and the Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, electric, natural gas, or telecommunication facilities. Therefore, the Project impacts on utilities would be less than significant.

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

No Impact. The proposed Project would not require additional water service. Most water would be provided by the proposed water capture facility, and any additional water use needed for irrigation purposes is already provided by the existing water lines and supply that irrigate the Park turf areas. Therefore, no impacts on utilities would result from project implementation.

c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?

Less than Significant. Construction workers would generate a negligible amount of wastewater from using existing toilet facilities associated with the public restrooms in the Park or from using portable toilets that would be managed by a private company where the waste is properly disposed off-site. The water capture facility Project would not involve the construction of new housing or include any new development that would require solid waste disposal, wastewater treatment. Wastewater generation from construction workers would not cause a measurable increase in wastewater flows to a point where the local sewer capacity and wastewater treatment plant is constrained. The proposed Project would also generate negligible long-term, operational wastewater volumes. Any trash debris, gross solids, or other particulates would be routinely removed from the pretreatment devices and infiltration chamber and disposed by the San Francisco Scavenger Company, Inc. Therefore, the proposed Project would not exceed wastewater treatment capabilities, its contribution would be negligible, and no new or expanded wastewater treatment facilities would be required. Project impacts on wastewater utilities would be less than significant.

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?

Less than Significant. According to the City's General Plan EIR, the disposal of solid and hazardous waste is overseen by San Mateo County and collected and processed at the Scavenger Company's South San Francisco Transfer Station. Solid waste is then transferred to Ox Mountain Sanitary Landfill, which has a throughput capacity of 3,598 tons per day. Project construction would not generate substantial amounts of solid waste. Solid waste generated would be limited to mostly excavated soil and fill material that would require

recycling and waste removal services. Most fill would also be reused off-site (i.e., at Treasure Island). Project operation would generate nominal amounts of trash debris, gross solids, and other particulates that would be routinely collected and removed from the pretreatment devices and infiltration chambers. These nominal amounts are not anticipated to be substantially more than the waste currently generated at the Park. Therefore, impacts on solid waste utilities would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant. The Project would generate a limited amount of solid waste during construction and would not generate large quantities of solid waste during operation and maintenance activities. The operation of the water capture facility would generate nominal amounts of trash debris, gross solids, and small particulates collected within the pretreatment devices and underground storage reservoir. The collected trash debris and gross solids would be cleaned out as part of the system's operations and maintenance. Most excavation and construction debris would be recycled, and any remaining waste would be transported to Ox Mountain Sanitary Landfill, which has a throughput capacity of 3,598 tons per day. The amount of construction debris anticipated to be generated during construction and the small amount of trash debris and gross solids collected during operation would not significantly impact the Ox Mountain Sanitary landfill capacity. Disposal of waste materials would comply with all local, state, and federal requirements for integrated waste management and solid waste disposal, and the Project would be required to submit a WMP as outlined in MM HAZ-1. Therefore, impacts related to solid waste requirements would be less than significant.

XX. WILDFIRE

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

ENVIRONMENTAL SETTING

The Project site is located in an entirely urbanized area, outside of any fire hazard severity zones. The nearest wildlands and areas of potential wildfire risk are located approximately one mile to the southeast, where there is a local responsibility area (LRA) with a VHFHSZ (Cal Fire 2007).

IMPACT ANALYSIS

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant. As discussed in Section IX *Hazards and Hazardous Materials* (f), , access along Memorial Drive during Project construction would potentially be limited to one travel lane, as the proposed Project would involve staging equipment along the road. Access along Tennis Drive and Eucalyptus Avenue would potentially also be limited during staging activities if excavated soils are temporarily stockpiled in the vacant lot north of Colma Creek. While proposed Project construction would result in additional worker and haul trips over a 12- to 18-month period, they would be temporary and the operation of the water capture facility would not impair or physically interfere with an adopted emergency response plan, or a local, state, or federal agency's emergency evacuation plan. All on-street construction activities, specifically those on Memorial Drive, would need to maintain access standards to allow access to the Park Lane Apartments and to ensure adequate emergency access. The proposed Project would implement Mitigation Measure TRA-1, which would minimize impacts to an adopted emergency response plan or evacuation plan. The Project site is also located in an entirely urbanized area, outside of any fire hazard severity zones. Therefore, wildfire impacts would be temporary and less than significant**.**

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?

No Impact. The proposed Project would not include temporary or permanent development and not involve project occupants. Recreationists would use the Park facilities both during and following project construction, but these recreational uses would not exacerbate wildfire risks. Therefore, no wildfire impacts would occur.

c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The proposed Project would not involve the installation of any infrastructure, such as roads, fuel breaks, emergency water resources, or electrical lines that would potentially exacerbate fire risk. The water capture facility would install a series of pretreatment devices and an underground storage reservoir and some irrigation infrastructure. Therefore, no wildfire impacts associated with infrastructure would occur.

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?

No Impact. The proposed Project would not 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. The water capture facility includes the installation of a drop inlet structure in Colma Creek, a series of pretreatment devices, and an underground storage facility that includes a cistern and infiltration chamber. The combination of the proposed stormwater features are designed to improve drainage and reduce downstream localized flooding. Therefore, no wildfire impacts associated with runoff, post-fire slope instability, or drainage changes would occur.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, 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 that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

IMPACT ANALYSIS

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 an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation. The proposed Project includes water infrastructure improvements within Orange Memorial Park. The City of South San Francisco is located within the South Bay of San Mateo County and is highly urbanized. Accordingly, the potential for candidate, sensitive, or special status species or habitats is low within the City limits. As described in Section IV, *Biological Resources,* Section V, *Cultural Resources,* and the preceding analyses no significant unmitigable impacts to the environment would result. The implementation of MM BIO-1 and MMs CUL-1 and CUL-2 would minimize impacts to biological and cultural resources. Based on these findings, the proposed Project would not degrade the quality of the environment, adversely impact biological resources, such as fish or wildlife habitat or populations, or eliminate important examples of the major periods of California history or prehistory. The City of South San Francisco hereby finds that impacts related to degradation of the environment, biological resources, and cultural resources would be less than significant with the incorporation of mitigation measures.

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

Less than Significant with Mitigation. Cumulative environmental impacts are multiple individual impacts that, when considered together would be considerable, or compound other environmental impacts. Individual impacts would potentially result from a single project or multiple separate projects that would potentially occur at the same place and point in time or at different locations and over extended periods of time. The proposed water capture facility would not result in individually limited or contribute to cumulatively considerable significant impacts. As discussed in Sections I through XX, all short-term environmental issues would result in either no impacts, less than significant impacts, or less than significant impacts with the incorporation of mitigation with the implementation of the proposed Project. Once operational, the proposed Project would have a beneficial impact on water quality and use of the Park would be similar to existing conditions. Construction of the proposed Project would result in some short-term temporary impacts such as geology and soils hazards, hazards and hazardous materials, increases in ambient noise levels, and additional haul and worker trips. Geological hazards associated with seismic activity, liquefaction, and soil instability would be mitigated through the

implementation of mitigation measures. Hazardous material exposure to construction workers would be mitigated through the implementation of mitigation measures. Noise impacts would also be temporary and less than significant with the implementation of mitigation measures. Construction impacts associated with additional haul truck and worker trips would be minimized with a traffic control plan required through the implementation of mitigation measures. In summary, the Project's contribution to potential cumulative impacts related to these other issues would be less than cumulatively considerable. Therefore, Project impacts would be less than significant with the incorporation of mitigation measures.

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

Less than Significant with Mitigation. Based on the nature and scope of the proposed Project and the analysis of the proposed Project's impacts, as summarized in Sections I through XX, no environmental effects have been identified in this IS/MND that would cause substantial adverse effects, either directly or indirectly, on human beings. There would be a variety of other potential effects during construction including:

- Impacts to nesting birds and downstream special status fish and bird species associated with construction activities and minor tree removal (discussed in Section IV, *Biological Resources*)
- Adverse impacts to prehistoric cultural resources and potential unknown human remains (discussed in Section V, *Cultural Resources*);
- Exposure of construction workers to hazardous materials, such as arsenic through transport, use, and disposal during excavation activities (discussed in Section IX, *Hazards and Hazardous Materials*);
- Exposure of nearby single-family and multi-family residences to increases in ambient noise levels and nuisances associated with construction-related noise (discussed in Section XIII, *Noise*);
- Impacts to emergency response routes during construction (discussed in Section IV, *Public Services*)
- Inadequate emergency access along Memorial Drive during construction (discussed in Section XVII, *Transportation*).

Most of these impacts would be temporary and intermittent, and all of these impacts would be less than significant based on compliance with applicable federal, state, and local regulatory requirements and established impact thresholds, as well as the implementation of mitigation measures. The proposed Project would not involve the use of hazardous materials in a manner that poses, unusual risks, and any hazardous impacts associated with exposure of construction workers to potential harmful contaminants in the soil (i.e., arsenic) during excavation would be minimized through the implementation of mitigation measures. The proposed Project would not involve operational noise that would interfere with surrounding residential uses, and would not result in long-term traffic hazards. Based on the analysis in this IS/MND, the City of South San Francisco finds that direct and indirect impacts to human beings would be less than significant with mitigation incorporated.

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5.0 REPORT PREPARATION

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